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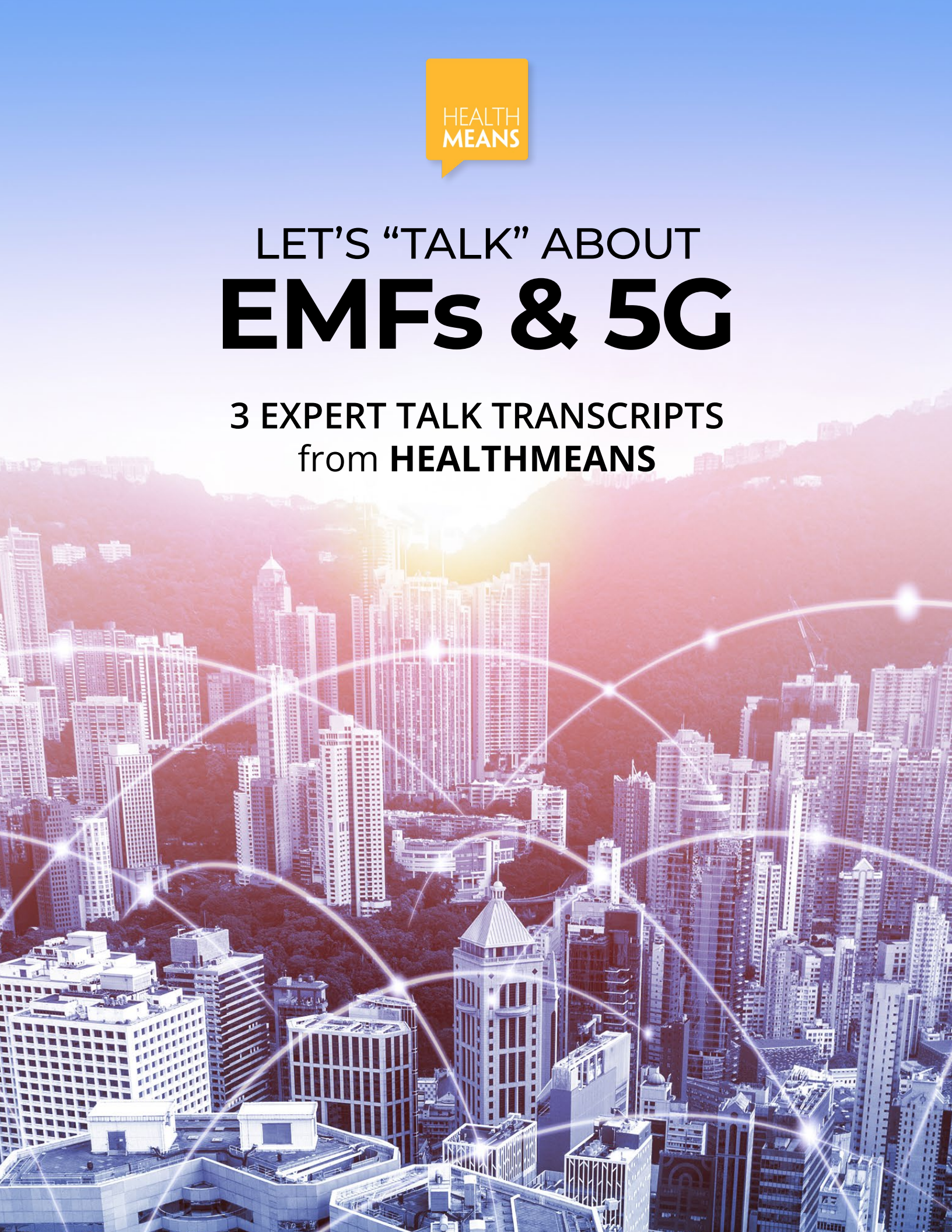

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EMF, 5G Cell Towers, Geoengineering and Retroviruses

Evan Brand, BCHN, CFMP, NTP with Dietrich Klinghardt, MD, PhD

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The purpose of this presentation is to convey information. It is not intended to diagnose, treat, or cure your condition or to be a substitute for advice from your physician or other healthcare professional.

Evan Brand: Hello, this is Evan Brand, certified functional medicine practitioner and nutritional therapist, operating worldwide via phone and Skype consults from evanbrand.com. Now, onto today's guest.

Dr. Dietrich Klinghardt is a medical doctor and founder of the Klinghardt Academy, the American Academy of Neural Therapy, medical director of the Institute of Neurobiology, and lead clinician at the Sophia Health Institute. He is also founder and chairman of the Institute for Neurobiology. Klinghardt Academy provides teachings to the English-speaking world on biological interventions and autonomic response testing assessment techniques.

Klinghardt has lectured at universities of Illinois, Utah, Capital University in Washington D.C. and others, and the medical schools of Geneva and Zurich. Between '96 and '05, he was Associate Professor at the Department of Applied Neurobiology at Capital University. He's regularly invited to teach workshops and summits, which I'm sure you've heard him on many summits before.

So, Dr. Klinghardt, thanks for joining me.

Dr. Dietrich Klinghardt: It's an honor. Thank you.

Evan: Okay. So let's chat about—first of all, I'm curious about your clinic, because your clinic, like on the disclaimer, it says, "Hey, not only are we a fragrance-free facility due to the chemical sensitivities, but we're also a cell phone and wireless-free clinic." So when did you implement that rule?

Dr. Klinghardt: Well, I've been aware of the damages and the dangers of Wi-Fi for a long time. We had our first seminar on electrosmog 12 years ago. So we were already full on going 12 years ago. And things have only gotten worse.

And so, there are only two factors that drive the epitome of chronic illness: One is the Wi-Fi environment; and the other one is the agrochemicals, the chemicals used to grow our food. If you could control those two factors, there would virtually be no chronic illness. We would have succeeded in eradicating cancer and eradicating pretty much all chronic illnesses.

But the opposite is happening. The incidence of neurological illness is going up every day. And the main thing that is paralleling is the increase in exposure to electromagnetic radiation. That has reached catastrophic dimensions.

Evan: Yeah, it has. Now, you're in Seattle or near Seattle. Are they bringing 5G in your area of Washington?

Dr. Klinghardt: Well, 5G, the plan is it will be everywhere. For the driverless cars, it's a technology that will be needed to make the driverless cars work.

And so, it will fairly rapidly be everywhere. So it doesn't really matter where it starts. It's going to be, within a year or two, everywhere. And that spells an avalanche of chronic illness.

Evan: What do you think are we going to see? I mean now we already see. I've lost count of the cases of autoimmunity, Hashimoto's. It seems like every single client I deal with has some sort of autoimmunity. What do you predict is going to happen once 5G rolls out everywhere?

Dr. Klinghardt: Well, in the last 10 years, the number one cause of death in women has shifted from cancer to neurological disease, so basically through Alzheimer's disease. And 80% of those is Alzheimer's disease. And there has been an increase of 663% in just the last 10 years, women dying from brain- related disorders. And that is directly, linearly related to the exposure to Wi-Fi.

And so, by increasing the exposures, which the 5G will bring to us, and also accelerating the speed of the wavelengths—so the 5G is right now broadcasting at 2.4 gigahertz. That's 2.4 billion hertz. And that's going to be

doubled for the 5G. The faster the wavelengths are, the more information you can put piggyback on it. And so, there is a race for that.

The unfortunate thing is that it is known in biophysics that the body, on its own, is using ranges between 2 billion and 20 billion hertz for the communication systems inside our body. And so the 2.4 gigahertz already has interfered with that. And the 5G, certainly, is absolutely guaranteed, will disrupt many of our internal communication systems in our body, which spells chronic illness, chronic fatigue, insomnia, autism in children. Children don't get a chance to develop normal brains in that environment.

But the full disaster will not be seen for another 10 years or so, when there are no more normal children, when society, as we know it, comes to an end. Fortunately, other countries like Russia and Iran have taken a very, very cautionary approach with this, and basically, are waiting until the US commits suicide. And then, they will be the emerging countries. There's no question. The countries that protect their citizens will be the ones who hold the future in their hands. And that's not the US.

Evan: Right. So, now, we see autism, what? I think the last record I saw was something like one in 50, maybe one in 40 is autistic? So are you thinking this is going to be one in two, one in one, or…?

Dr. Klinghardt: Well, the unofficial numbers are one in 26. And the numbers are doubling every four years now. So it has accelerated. And Stephanie Seneff, the famous MIT researcher, has predicted that by 2032, which is not that far away, that's 14 years from now, all children will be affected. No more normal children.

Evan: So you're from Germany. Now, what's Germany doing? Are they doing things different than the US? Or do you feel like there's hope there? Like would you ever move back to Germany? Or do you feel like you're in the States for good?

Dr. Klinghardt: Technically, Germany has the same status as Puerto Rico and Hawaii. There's no peace agreement between the US and Germany. And so, Germany is not allowed to make its own decisions. So the US is forcing its vaccine program on Germany. It's forcing the same technological issues on Germany that are done here. So there will not be a difference. It's not safe there.

Switzerland, very different. Switzerland is still a free country. And it has taken much more protective steps.

Evan: So I've done the steps as far as—I've watched so many of your lectures. I feel like I already know you. Everything that you put out, I try to watch you. Turning off the breaker. Putting in some of the Stetzer filters, making sure that there is no increased magnetic field after putting in Stetzer filters. Going all incandescent lighting, no LEDs. No Wi-Fi. Air tube headsets, which who knows if the rubber tube headsets makes a difference or not? Grounding myself as much as I can. Moving to the middle of nowhere, surrounded by forests. Is that enough? Or for me to raise my daughter who's less than two years old now healthfully, will require more extreme measures?

Dr. Klinghardt: No, I think it's enough. I think reasonable is enough. You don't have to be a perfectionist. But reasonable is enough. It's the cumulative exposure, the cumulative effect of all the electromagnetic sources. Even the household currents, the TV, the radio tower, the cell phone tower, the TV towers, it's all that together. And so, the more you can reduce your exposure, the more protected you will be.

And then, of course, there is the internal protection. We know that when people are heavy metal toxic, they are a walking antenna and draw the Wi-Fi into their body. Certain genetic or epigenetic problems that we realize will make people more vulnerable, this largely has to do with the methylation of the DNA. So there are some things you can do internally also to protect yourself.

But the thing that I'm most concerned about is that the—maybe I give it to you in pieces. So in the 1980s, we thought everybody had Candida. And that was the solution to everything. And then in the '90s, we realized, under Candida, were the herpes viruses and the whole hosts of other viruses. And then came Lyme disease. And we realized "Oh my god, yeah, everybody has Lyme disease," once we knew how to diagnose it.

But in the last two years, we're realizing that that's still not the depth of the bucket. What's at the bottom of the bucket is a group of viruses. They're called human endogenous retroviruses. These are viruses that are embedded in our DNA. We come in with them. But they're silenced. They're silenced largely through two mechanisms. One is called methylation. And the other one is called acetylation.

And those mechanisms are destroyed by the exposure to Wi-Fi or the cumulative exposure to the electromagnetic fields. And so, what happens is that these viruses are now replicating in us. And the most well-known retrovirus is HIV.

And so we referred to the illness that comes out of this as HIV minor

or AIDS minor. And visible on the surface are people testing positive for Lyme. They're testing positive for Candida, for many of the molds and fungi that we have.

But the real reason is that the immune system is completely dysfunctional as a result of these viruses.

And then depending on—if you go to Ritchie Shoemaker, he will diagnose everybody with mold. If you go to Richard Horowitz, everybody will have a form of Lyme disease. If you go to somebody else, everybody's going to—the medical medium, everybody's going to have Epstein-Barr virus. But the truth is that there's something deeper than that, the retroviruses.

And Judy Mikovits and Frank Ruscetti are the main researchers on that, Marco Ruggiero, who've been my mentors in that. And so, by taming the retroviruses, we actually get control again over Candida, we get control over mycoplasma, we get control over Lyme disease, we get control over the Epstein-Barr and Herpes type 6 and all that.

And so, it's been an exciting journey. But this is all of us being affected by that. So the moment you're exposed to Wi-Fi, you will unleash this dragon on the inside that then when this viruses start replicating, you will have all the symptoms of a chronic viral infection that doesn't instantly kill you like AIDS used to do or HIV does. But it's a slower process. It's a slow kill.

And so, by actually getting control of the Wi-Fi environment, of reducing the toxic burden that people have, we actually are able to get control of the retroviruses again. And then, the Lyme disease, the microplasma, the molds, the Candida, either fall away almost on their own or they become a much lesser issue than like when we needed to do three years of intravenous antibiotics to treat Lyme disease. When we actually tame these issues, it may be six weeks on an herbal compound that cures the patient.

And that's sort of what we're observing right now. It's a very exciting journey. But also, increasingly more difficult. As you mentioned before, how can we let the entire population know that they're actually being destroyed by the current way Wi-Fi is licensed without any medical trial done to show safe or not safe? We know it's not safe. Actually, all the trials that have been done show it's not safe. But that's licensed everywhere in the US without any medical tests that was ever done to show that it's not causing harm. And so it's violating all principles of medicine, of common sense, "First do no harm." You first destroy whole generations of children and the people in order to then look back and say, "Maybe we shouldn't have done that." But it's going to be a grim situation. And I'm not a pessimist. I'm just a realist.

Evan: Yeah. I understand. So how old are you, if you don't mind me asking?

Dr. Klinghardt: I'm 68.

Evan: 68, okay. So even in your lifetime, you're suspecting we're going to see some major changes. We've already seen major changes. I've heard you talk so much about what the United States used to be like in the 80s and how people were much more positive and everything kind of had a different energy to it than it does today.

Dr. Klinghardt: Yeah. The US was a fantastic place to be. It still is a good place. But it's unfortunate in the kind of democracy that we have, that the politicians have become so vulnerable to the influence of money that they cannot govern without watching out over their money from morning to night for the next re-election. And that has made this system so vulnerable, so corrupt, and so wounded. And going into the future in a really dark way, because there's no political will to change any of this. There's no political will to look at the signs that's available. There's no political will to translate the signs into policy to protect people.

There are so many simple options that we know of that could—we're not suggesting that people should not have Wi-Fi. But people should have a choice, whether their home, inside their walls, get blasted or not. There were so many safer technologies available. But there was no political will to use a safe alternatives.

Evan: So, basically, the situation that I'm in now, I'm home most of the week. I work from home. I see all of my clients via Skype and phone. So my risk is small enough where I don't have any neighbor close enough to even pick up Wi-Fi. I only have, maybe, one or two cell phone towers within many, many miles where people in Manhattan will have 1,600 towers.

Let's just say five days a week, if I'm in a pretty low EMF environment, if I go to Whole Foods on the weekend and I'm getting blasted with Whole Foods' Wi- Fi and the Starbucks' Wi-Fi next door, I probably won't experience too much, you're saying, because my cumulative exposure during the week is so low?

The weekend, I can probably handle a day in the city.

Dr. Klinghardt: Exactly. But be aware that you're living a very privileged situation, sort of. And if everybody goes crazy

and everybody becomes a mass murderer, then you won't be safe either. The damage will come to you in other ways or your own children. When there's a school shooting where the children go to school, you won't be able to protect them there if the rest of the world is going nuts. And so that's sort of pretty much what we're up against, sort of there will not be a safe world surrounding you. You can create your island for a while. But that won't protect you, ultimately.

Evan: Agreed, agreed. So what about the mental health aspect? I mean I know that we talk so much about autoimmune disease. You talked so much about autoimmune disease. With these retroviruses and other things we're up against, are we going to see changes in mental health too, like anxiety, depression? You're mentioning like murders. Are we going to notice more rage? Or what are we going to see do you think?

Dr. Klinghardt: Yeah. Well, the leading number one diagnosis in the US right now is chronic anxiety. And that is clearly linked to what we're talking about. Yes, glyphosate is involved. Some toxins are involved. But the main one, the main driver of anxiety is the Wi-Fi environment.

How do we know that? Well, when we have people shut it off and protect the home, it takes usually six to eight weeks and the anxiety is gone. It's a much more attractive therapy than putting people on valium-like compounds.

Evan: It's just crazy, the benzodiazepines. These people get on these drugs, the lorazepam and such, and they just can't get off of them. They're stuck on it forever.

Dr. Klinghardt: Yeah. Absolutely. Of course, it's a business on the surface. But even in the pharmaceutical industry, nobody is interested in having a sick population. That is not true. And by the way, I think it's important for the listener to know that, today, the cell phone industry, the telecommunications industry, financially, is six times bigger than all the combined pharmaceutical industry. And that is the reason why no politician can even propose a change in the law or propose an investigation without approval by representatives of the Wi-Fi promoting industry.

And so we're sort of screwed in that way. We need a different political system. Some of us have hoped, when Trump comes into office, that he may not be financially as dependent on securing his future. Now, I'm not so sure that happened in that way. I'm not so sure.
Evan: You want to know something interesting? I've got a friend who lives in Los Angeles. He told me, right after Trump got elected, that the spraying of the chemtrails in Los Angeles stopped for about three weeks. He said that he had seen the most blue sky ever since he moved to Los Angeles in 1997. And then, three weeks after he got elected, the spraying resumed. Did you notice anything like that in Washington?

Dr. Klinghardt: Absolutely, absolutely. And it has lightened up the program, but only in the US. It worsened in Europe. How's that for a taste?

Evan: That's crazy. See, I've tried to use really high-powered binoculars. I've never been able to see any markings, any planes. They always fly so high compared to a commercial airliner, that you just can't even see what it is to try to see what kind of plane is it.

Dr. Klinghardt: You know that big air tankers? Maybe our friends at Boeing actually equipped them at the tanks to do the spraying, so high-flying tankers. They're another mile above the commercial airlines.

Evan: So I collected some snow, a snow sample. Because in December, here in Kentucky where I am, we saw five or six inches worth of snow come in December right after an entire day of spraying. So I collected a snow sample.

And I was going to send it off to get a water testing. But I couldn't find any good enough company for water testing to try to test and see if the barium and the aluminum and strontium and all the things are actually in there or not. So do you think it would show a positive if I tested some snow?

Dr. Klinghardt: Well, it depends on the lab. We're talking about nano particles. And it needs a special lab that specializes in nano particles to detect them. It's a very different technology from just your regular lead in the drinking water.

Evan: Right. Do you have any companies that you could recommend for watertesting or melted snow testing?

Dr. Klinghardt: Not in the US. It's very difficult.

Evan: Okay, okay.

Dr. Klinghardt: And many of the labs that we used to work with got threatening letters from the government agency overseeing the labs. Sort of that to stay away from testing aluminum nanoparticles and titanium nanoparticles. So how's that for a taste?

Evan: I know. Well, I heard an interview—and actually, it wasn't an interview. It was a lady who called NASA. And she recorded the line. And basically, the NASA engineer was talking about the chemtrail program. But people still

say that this is a conspiracy, even like meteorologist. Do you know how many meteorologists? They've laughed at me when I ask them.

Especially if I call it geoengineering, they give me a little bit more respect. But if I ask them about chemtrails, and I used the word "chemtrail," they kind of just laugh at my face. It's like will we ever see the tide turn or admittance of this? Or do you think it's going to be just a continuous cover-up?

Dr. Klinghardt: Yeah. I mean, first of all, there's been a huge amount of money spent in the line of fake news to indoctrinate anyone peripherally involved with weather or air quality. People have been shamed for actually reporting on it. People have lost their jobs. And so in the more intelligent community, there is a fear about talking about it. And in the less educated part of the community, they have given in to the ridicule and the shaming techniques that have been used to silence them. So this is an old technique, the same technique that Adolf Hitler used to use to squash the Resistance. The same technique's been used in all dictatorial countries. It's just a surprise that it's used in the US as well.

Evan: Wow. Now, let me ask you a good question that I've had in my mind. And I've thought, Dr. Klinghardt's probably the only guy I could ask this and get a pretty good answer from. So I just moved, like I told you, out of the city into a pretty rural area. Since I'm out of the city, they reroute the planes at night time.

So UPS, one of the big major hubs, is in Kentucky. So from 10 p.m. to 7 a.m., every night, they reroute all the planes away from the city and right over my house. And they have been pretty low, like 8,000 feet elevation. So if I've got an organic garden, at an 8,000 feet elevation, if there's maybe 20—now, they're not spraying. They're just UPS planes coming in to land. Is that something to be concerned about where I would want to try to cover up the garden at night time to protect? Or do you think at 8,000 feet elevation, the dispersal would be pretty wide?

Dr. Klinghardt: I think you're probably safe. In fact, if they're right over you, you're safe. Because there's always some wind, going this way or that way, moving the fallout somewhere else.

But you have to know that the airplane fuel used called Jet 1 is leaded. It's fully leaded. And so, even if there's no chemtrails spraying going on, no persistent chemtrails, you'll still get the lead and the benzene residues, which could settle on your fields. And lead pretty much goes straight down because it's not a light metal. It doesn't float. So I would dare to say that, probably, your field has a good amount of lead. A little of lead may be okay. But there's a certain threshold in which eventually have the soil tested, grass tested that grows.

Whatever grows, have it tested. If you have pine trees, pine trees are great. They concentrate the toxins that are in the soil in the needles. And so, that's an easier one to test. You just send the needles.

Evan: Yeah. I just planted some. So, maybe, if I can find some established pine trees, I could test those better. That's a good idea, I wanted to ask you, and I know it depends. And you're continually evolving your medicine. But what are the biggest pie pieces of someone's health protocol? Like when a patient comes in to see you, obviously, we're addressing the Wi-Fi. We're addressing the EMF components. What are the other big pieces? Like do you still focus so much on the Lyme, the other bacteria, the parasites, the Candida? Or is that becoming a less big part of the health puzzle than the wireless piece?

Dr. Klinghardt: To start with, it's always the environment that the patient lives in. So it's toxins in the home, the paint, the plastics, outgassing of carpets, the mold in the homes.

Thanks to Ritchie Shoemaker, there is a huge number of the population are being mold educated. And then, of course, there is the interpersonal environment. People, like the relationship life that people have. There are allergies. If you have a cat and you're allergic to cats, there's nothing we can do for you. There's the food. There's the diet. Are the people eating food that's compatible with their system. So we're looking at that. It has to come first.

But then, with the increasingly sick population, some statistics show that in the last 20 years, the health span decreased by 20 years. The health span is the number of years that we have before we get chronically ill. And in the last 20 years, that lessened by 20 years. And it's increasingly shortening. So in a few years, the health span is going to be, maybe, five or six years. So it means, by the time we're five or six years old and we go to school, you're chronically ill. That's sort of where we're very rapidly heading.

So the big things for us in the office are pretty straightforward. We look at the toxin accumulation in the person. Aluminum, definitely, is number one.

Everybody is aluminum toxic. And to get that reduced in the system is probably the single most important urgent issue. The other one is glyphosate and atrazine. The

majory used herbicides, to get that down.

So any medical treatment, for me, has to start with cleaning the terrain to have a reasonably functional system to work with. And then, the next thing is to clean up the infections. And just to give you some numbers that we've got from Zach Bush, there is over 40,000 human pathogenic species of bacteria, like Lyme disease, Strep, Staph stuff. There are over 300,000 parasites, different species of parasites, like giardia, amoebas, and tapeworms, and so over 300,000 of those.

And when we get to mold—and that's what I was excited to talk to you about mold or Candida—there's over five million known species of molds that are affecting our health, over five million.

But for us, the biggie in all this is, okay, how are we going to treat five million molds? You have to have broad-based strategies to treat people. And for us, all this starts when we deal with the infections to attend to the retroviruses and to get the body's own controls back over all these other things. And then, we treat Lyme and molds and Candida and Epstein-Barr in milder ways. It doesn't take a huge onslaught of armamentariums and intravenous therapies and all the things that people do. It becomes a pretty benign process then to get people back on track.

Evan: Good. I think what you're saying is that, basically—to kind of restate it in a different way, just to confirm—the other pieces of the puzzle, the Wi-Fi, the environment, the diet, things like that that are in the system, you got to fix those first. If you just go straight to Candida, you're just going to fail. If you're trying to throw in monolaurin and Lauricidin and all these other products, many practitioners have come on to the summit and recommended olive leaf and oregano oil and berberines, which I think were great.

But just like I said, I learned so much from you and try to implement, as much as I can, learning from you with my clients. If I just went after the Candida, it seems like it wouldn't work. I haven't tried it. But I don't want to. I don't want a limited approach. Would you say that to the practitioners that that's all they do is Candida, Candida, kill, kill, kill, that they're not going to succeed?

Dr. Klinghardt: Well, the literature is pretty clear that Candida is able to hold in its cell wall a multiple of its own body weight, in terms of lead, cadmium, mercury, and all of that. And there are plenty of papers that show in the body, Candida becomes systemic, which is the candidemia, it's called, or fungemia that didn't exist until the 1990s.

So in the 1990s, with the emergence of AIDS and HIV, Candida started to become systemic. And of course, there are different kinds of Candida. There is Candida tropicalis, Candida krusei, Candida glabrata, and so on and so forth. There's many different sub species.

And in the '80s and early '90s, many of them became completely resistant to the diflucan and to some of the medical drugs. And that's, of the course, when the alternative Candida treatments exploded. But my treatment for Candida has always been, "Well, let's first take the mercury out of the equation, and let's take the lead out of the equation." And then, Candida usually withdraws back in the gut, becomes again a symbiotic part of the flora. Actually, talking to our immune system in ways that are very important and very helpful. It's not the enemy.

Candida becomes systemic when the conditions are forcing it to become endemic. I think you're probably aware. Like I've worked with a Swiss fungal researcher. And we had a mold culture. And exposed one mold culture to the Wi-Fi instrument that was there, one of the early Wi-Fi routers. And the other same mold culture, we split it in half, was protected by one of the things you put over cheese that had a wire mesh over it. And this researcher, when he was alive—unfortunately, he died a few years ago—was able to measure the amount of biotoxins produced per hour by the Candida that was grown there; and also the virulence. That means the toxicity of the biotoxins created.

And the numbers were just shocking. The unprotected mold was producing 600 times more biotoxins per hour than the protected one. Meaning, when you translate that, the reason why Candida and other molds become pathogenic is because when you expose them to Wi-Fi, they suffer as much as we do. And they think that you are attacking them. And therefore, they're mounting their defenses to shoot back, to let you know this is not okay with them.

And so, you could then either try and kill the Candida, which is one way to reduce the amount, which will never succeed on the long run. But on the short run, you may make some gains. Or you change the environment for the patient and the Candida. In simply turning off the Wi-Fi at night, for example. It's a much easier and less expensive treatment for Candida.

And the Candida that was, today, highly virulent, highly pathogenic becomes a peaceful member of your microbiome tomorrow if you change the conditions. And we

know that glyphosate and the food chain are big factors also to drive the pathogenicity of these box. But the big one is the Wi-Fi.

Evan: That's great. With the glyphosate, I got my levels tested through Great Plains. I did their GPL-TOX panel too and looked at the gasoline additives like the methylbenzene or ethylbenzene. It was the MTBE and ETBE, the things they add into the gasoline when they remove lead. It's like, "Oh, gas is unleaded." And it's like, "Well, they added something equally toxic to it." So my levels were off the charts. So what I started doing was doing infrared sauna.

But here's something that's crazy. And I want to try to get your take on this, figure out what I'm doing wrong or what I can improve upon is, when I get in the infrared sauna—I talked with Dr. Mercola about it—he said, "Don't go too hot. Go like 120 degrees infrared, far infrared." And I did 20 minutes at 120 degrees. I did some electrolytes. I did some adrenal adaptogenic herbs, things like that, some liver support. But when I got out, my heart is racing for 12 hours and I can't sleep. What can be going on there?

Dr. Klinghardt: Well, you're definitely mobilizing something that's not good for you. But the only way out is the way through. So I would load you up with chlorella from BioPure before you go into the sauna. Well, it takes you a couple of hours for the gut to [inaudible] balance. So for a few days, you should high dose of chlorella. And then go into the sauna. And then it should be a very different experience.

Evan: I think it was Ann Louise Gittleman, told me, "Your chlorella is like a test tube chlorella, which you want." Because she said, "You should not trust chlorella from basically any source now." Is that right?

Dr. Klinghardt: Yeah. There is grade 1, 2, 3 and 4; 4 is the worst and 1 is the best. And there are only one or two products in the market of grade 1. And so, that's what I use. BioPure has that.

Evan: That's amazing. What other products in your BioPure line should I or the listeners be considering if they're on this journey of working on metals and yeast and fungus, parasites? What other things would you say are foundational?

Dr. Klinghardt: Well, for extracting glyphosate out of the microbiome in the gut, it's a peat extract that's called matrix minerals. And that's been shown in research that actually extracts, from your microbes in the gut, it extracts the glyphosate from them so they become functional again. Because glyphosate destroys the shikimate pathway. It's a biochemical chain of events that the microbes have. And glyphosate totally destroys that.

And so, it was almost saying, well, we don't have that pathway and, therefore, glyphosate is safe for us. But it turns out that the microbes in our gut are the most important single ingredient of our immune system. And by destroying that, we see what the messes that we have created. And so, the matrix minerals extract that from the microbes in the gut.

Some people don't tolerate chlorella. And then, we give them Ecklonia cava. Ecklonia cava is a brown algae from the ocean that has similar toxin-binding capacity as chlorella does.

Evan: How would you know if you don't tolerate chlorella? Would that be like headaches or heart palpitations or what would you notice?

Dr. Klinghardt: No, most people complain, when they don't tolerate, of constipation.

Evan: Okay. So that would be it. If you got constipation, you could think, "Okay, chlorella is not for me." Or could you maybe add in some magnesium or something to help flush the bowels?

Dr. Klinghardt: Yeah. Most likely, the constipation is caused by something that the chlorella actually mobilizes. And so, rather than stopping, to then actually increase the dose of chlorella and combining it with things that keep the bowel movement forward, which is different for everybody.

Magnesium is always safe, magnesium oxide. But there are so many other ways that will make the bowel move. And so, we always try that first. And only if that fails, then we go to Ecklonia Cava.

Evan: What product is that one called? It's just called, the Ecklonia Cava? I see. Is it the PC version? It says, PC Ecklonia Cava.
Dr. Klinghardt: Yeah.

Evan: Okay. How would I decide? Like let's say that I want to get back to the sauna. Like I said, I did it out, basically, 1 p.m. in the afternoon. And at 1 a.m., I'm laying on the couch, and my heart's still racing like, "Oh, my gosh, am I ever going to sleep tonight?" Does chlorella, across the board, pull out many of the things that I could be releasing? Or should I be looking at something like your cilantro or the Metal Sweep products? Like how would I decide or build a full—

Dr. Klinghardt: No. I think our experience is that chlorella covers it all. You just have to take enough of it. Sometimes, people that has to move to really deep-seated toxic

situation, and we have to take like 120 or 140 tablets a day for a few days. And then tinker with it and taper it down to maybe, whatever, 10 tablets twice a day.

But in the acute situations, when you have a backlog of 20 or 30 years of toxic stuff and you suddenly break the dam on that, you need a large amount.

Basically, the instruction, you take enough chlorella so your poop is green. Then we know you've covered your whole gut with it. And people would feel fantastic usually.

Evan: So you've got different types. I've seen you've got like—and I may mess up the pronunciation, so I apologize, you've got the Chlorella pyrenoidosa?

Dr. Klinghardt: Yeah, pyrenoidosa and vulgaris. Pyrenoidosa is the stronger toxin binder. And vulgaris is a little bit easier on the gut. It's basically a multivitamin. It's a natural multivitamin. They're very similar. But they're 10% different. So the pyrenoidosa is 10% to 15% better in binding with toxic crap.

But it's a bit harder to digest. And the vulgaris has a thinner cell wall and is a little easier for the body to make the ingredients available as a nutrient for food. But it's not as good at binding toxins. So we always start with pyrenoidosa.

Evan: Okay. People talk about broken cell wall chlorella, non-broken cell wall—does that make a difference in this example?

Dr. Klinghardt: No. All chlorella for human consumption is broken cell wall chlorella. Chlorella has a dual membrane around it and the outer membrane is hard like glass and completely indigestible. And it needs to be broken. There are different ways of doing that. It's either mechanically with a thumper or through ultrasound, by vibrating it. I'm afraid, probably, there are some types of chlorella out there where it's solvent broken, which we do not recommend.

Evan: So what would you recommend starting out? Like if you're doing sauna therapy. Like, I want to get back into sauna, how many tablets would you recommend starting with?

Dr. Klinghardt: Well, with the experience that you've had, it takes 24 hours from the mouth to the poop. So I would 24 hours before you get into the next sauna, start maybe with 20 tablets or 25 tablets, three times a day every eight hours. So you have at least three or four doses in. And then, go back in the sauna and see what happens.

Evan: Wow. And then, what about after? Any type of like a post-sauna protocol that you would implement?

Dr. Klinghardt: Yeah. The most important post-sauna protocol is the cold plunge. You should never do a sauna without cold water afterwards. All the sauna research that shows this beautiful detox effects was always done, you get in the sauna, you sweat, you go under the cold shower or cold plunge afterwards. That is what makes it safe. Otherwise, we will have all sorts of circulatory problems afterwards or fevers or feeling the—

Evan: Really? If they don't do the cold afterwards.

Dr. Klinghardt: Yeah.

Evan: That's amazing. Now, do you feel like it's because—

Dr. Klinghardt: In the rest of the world, this is known. The US is the only country that has misunderstood the sauna therapy. The sauna therapies go nice in this nice, warm, sweaty kind of thing. It's a pleasant thing. And then you go out and have a warm shower, and you watch TV.

No. The first part is the sauna. But, absolutely, obligatory, other part is the cold water. That resets your whole circulation and the detox system and the hormones system and the immune system. That is a huge important part of sauna therapy.

Evan: Makes sense. Some people argue that you need to wear cotton clothes the whole time so that you can be absorbing the sweat the whole time or wiping yourself with the towel the whole time. Do you worry about the details like that? Or if you're naked in the sauna, you're fine?

Dr. Klinghardt: You're fine if you're naked in the sauna if you, afterwards go under a cold shower. The only idea is, when you do cold shower, the pores of your skin close. And you do not reabsorb the stuff that you just sweated out. But if you go under a warm shower, the pores stay open and some of the stuff that you sweated out and put so much effort, it gets reabsorbed. That's one of the reasons for the cold water.

Evan: How simple. But everybody messes that part up, for sure. I would agree.

Dr. Klinghardt: I know. That part is unpleasant.

Evan: What about adrenal support? How do you feel about adaptogenic herbs or supporting the adrenals when you're focusing on detoxification or working on the Candida, the metals, all of this whole thing?

Dr. Klinghardt: So, the easiest one to know from a person or patient,

to find out are you fatigued? Are you crashing in the afternoon? Are you crashing in the morning? Are you feeling pretty good? Because the main adrenal symptom is a deep level of exhaustion. And so, when you have that, we put people on support.

The FDA closed down all the channels to get a proper full adrenal. So as a medical doctor, I went back to use low-dose cortisol therapy like Jonathan Wright taught us how to do that. I'm not particularly impressed with any of the natural things currently that are on the market. And Cortef, the low-dose cortisol, is very inexpensive. Even if people don't have insurance, it's less

expensive than the natural things that don't work. And so, we use that. But only for the crashes.

We all have adrenals. And we only need to support them if they're over burdened and so on. But that's the easiest one to tell. When you go through your day and then you have a big crash and then you can try out the adrenal support. And if that fixes it, you'll know that's what it was. We can do the saliva test for people that want to be more technical with it.

Evan: Yeah. So, personally, you're not staying on any type of adaptogens? You're not doing like ashwagandha, rhodiola? You're not staying on herbs just for like a daily preventive adrenal maintenance?

Dr. Klinghardt: No. As a man, I take ashwaganda every night because it's also good for my sex drive and for testosterone, and it's great for the sleep.

Evan: How much do you take?

Dr. Klinghardt: Ashwagandha? I take four capsules of the Ayush Herbs. There's a local company here that has organic ashwagandha that's very good.

Evan: Yeah. I like Ayush. I use their AP Mag formula a lot for parasites. It's worked really good for like Blasto and Entamoeba parasites. I think there's, is it maybe 500 milligrams per capsule? I'd have to look it up. You probably take it around a gram or two.

Dr. Klinghardt: Yeah.

Evan: Any other foundational supplements that you're doing? Anything that's in your daily toolbox?

Dr. Klinghardt: Yeah. Well, I think the most important thing for us, are the things against the retroviruses, and the leading thing are broccoli sprouts. Freeze-dried broccoli sprouts because it prevents cancer. It's a treatment for autism. It's a fantastic retroviral drug. We individualize every test every patient on a variety of things. And then establish a program according to that. But one of the crucial things for us is always to cover the retroviruses first and the detox items.

So there are very few people that we have that don't take chlorella for detoxing. There are a very few people that don't have the basic set of antiretroviral agents. Scutellaria is one of the herbs. Broccoli sprouts are fantastic for that. And there are a few other things. So there will be tests through and put people on it. And it's fantastic.

Evan: The Scutellaria, is that the Chinese skullcap?

Dr. Klinghardt: Yeah. It's a particular extract from it.

Evan: Okay. Do you at BioPure have a particular type of that that you sell?

Dr. Klinghardt: Yeah. It's a baicalin extract of Scutellaria root from particular mountain region in the height—it has to be about 2,000 meters up from the ground where that's grown to have the proper ingredients. And that's the one.

Evan: And what is that called? I'm on your store now. I just want to make sure I'm looking at the right one. It's in the immune category?

Dr. Klinghardt: Yeah. I don't know. I think we get it from BioPure, but I don't think it's even on the list yet. It's been a while.

Evan: Okay. So maybe you can't buy it—

Dr. Klinghardt: The wheels are turning very slow at BioPure. They have very high quality, but the wheels—they have trouble securing enough for the general public, because it needs to be the high quality stuff. And so we're getting it.

And they will. I know from Joe, who runs the company, that they found a source that's reliable, trusted, organic, grown at the right altitude, harvested the right way.

Evan: Perfect. So we'll just check back then in a few months. Maybe you guys will have it on the site.

Dr. Klinghardt: Yeah, yeah. Definitely.

Evan: That's great. Well, thanks so much for your time. I know we got to wrap this thing up. I had so much fun. I'm sure we can go for hours. Any last words of wisdom for people that you'd want to leave them with?

Dr. Klinghardt: Yeah. I think the main thing people need to know, first of all, most people that are chronically ill feel like they failed, and feel like it's them, and have a sense of guilt underneath that,

but also a sense of loneliness with it. And because I'm lecturing in Australia, England, Germany, Switzerland, or so, I know it's the whole Western world, right now, going down like a sinking ship. And so, I think it's important for people to know that the things that we discussed here, that's relevant to everybody.

I do have a teaching institute in Europe, Klinghardt Institute, where we try to make all these exact knowledge available to everybody without having to pay any money. And it's still very, very easy to stay healthy. It's just you need to know who the enemy is and what you have to defend against.

And there is intentionally seeded a lot of misinformation out there. So nobody will tell you about the retroviruses. Nobody will tell you about the persistent chemtrails and the aluminum that we're inhaling. So the main toxin is aluminum and glyphosate and fluoride. Those three together.

And the main bug that we're all dealing with is the human endogenous retroviruses. It is not the Lyme and the Candida and the molds and stuff. These things are all opportunistic, secondary to the retroviruses.

And if you understand that it's toxins and the Wi-Fi that have unleashed this monster in us, the retroviruses, that we need to detox, we need to get control of the Wi-Fi, and we need to treat the retroviruses. And then there's a beautiful life ahead, where we can be confident and trusting in our health.

I wasn't always healthy. I'd struggled with this also, because the causes of what we're facing are invisible and insidious. And they're hidden from us, intentionally. And so, fortunately, I have a technique, with ART. I use a form of muscle testing that has allowed us to go deeper into the system.

By the way, there's an article out now that shows the validity and reliability of our method of ART testing in a peer-reviewed journal. So that was a big joy for me when it came out.

But it's not that difficult. And we don't have to be perfect with our diet. We don't have to be perfect with our exercising. There are so many misdirections that people are directed to right now. Just be careful in doing everything in reason. But what you should not be doing and reason is the treatment of the retroviruses and the prevention of the electrosmog. That's where we should be unreasonable.

Everything else is overrated right now, the ketogenic diet, the South Beach Diet. My friend, Joe Mercola's exercise program is fantastic. But you have to be a rich person that doesn't have to work in order to do his daily exercise routine. I can't afford it. I have to actually get up in the morning, have breakfast, and go to work. And then, when I go home at night, I'm tired. I'm not in the mood of exercising. I do walk, but I can't exercise. And so I think, we need to be reasonable with where our lives are at, what we can afford, how many health-related things can we do.

But what we cannot compromise, you have to shut off the Wi-Fi whenever you can. You have to wear protective clothing. You have to use a cell phone that you do with the air tubes or with the loudspeaker. You have to seek out Wi-Fi free environments. If somebody installs smart meters on your home, you will become neurologically ill and compromised. You'll stop sleeping, and you'll get ill.

And so, you have to fight those battles. Everybody who listens to this, you have to become socially active in the community to fight for your right, to stay healthy. And that is, right now, under threat, because like—the place where my office is, Woodinville outside Seattle, is the first community in the whole union where the city council has decided, there's no opt-out solution for the smart meters.

And so, the people in the city councils are bought by the industry. They get their paychecks under the table or over the table. And so really the only way out is for people to educate themselves. But really, it's not that difficult. We still have a beautiful planet.

Maybe just one more number that may contradict what I just said. It's just published that in the last 10 or 15 years, 80% of the insects have disappeared. 8-0 have disappeared. And with that, 70% of the songbirds. And the [inaudible] is rapidly declining.

And so, it's not an "I'm not a paranoid" kind of thing. But our boat is in flames. Our ship is sinking. And it takes all hands on deck. And the few things I shared with you are reasonable, simple things to survive this time, until there is a turnaround, which there will be. I always believed in the American ingenuity.

And right now, out of 30 countries surveyed for child mortality, US comes in last, worst. And so, there is some objective measurements that we are leading the rest of the troops into disaster. And we need to turn around and go on a different direction. And I know we will.

We have an interesting government right now, where it's not so sure yet which way that is going. I was hoping that Mr. Trump finally finds

some time to actually govern rather than fighting all these battles. But it doesn't look that way right now. That's what I only want to say for today. Evan, It was great meeting you.

Evan: Thank you.

Dr. Klinghardt: Yeah.

Evan: Thank you so much. Well, we'll chat again.

Dr. Klinghardt: Thanks for what you're doing.

Evan: Yeah. Well, thanks for your time, your expertise. It's definitely a blast. And hopefully, we'll be in touch later this year. You take good care of yourself. And we wish you the best.

Dr. Klinghardt: Thanks, Evan.

Evan: Thank you.

A Danger We Can't See: Electromagnetic Fields and Their Effects on Our Health

Carla Atherton, MA, FDN, TNC with Ann Louise Gittleman, PhD, CNS

Click here to watch to this interview!

The purpose of this presentation is to convey information. It is not intended to diagnose, treat, or cure your condition or to be a substitute for advice from your physician or other healthcare professional.

Carla: Hello! And welcome to The Children's and Teen Health Summit. I am your host, Carla Atherton, founder and director of the Lotus Health Project, LotusHealthProject.com, where we empower people to get healthy and stay healthy in mind, body, and spirit and on the social, global, and environmental levels.

For this session of the summit, I am excited to be speaking with Ann Louise Gittleman, PhD, about electromagnetic fields and their impact on our children's health.

Visionary health expert Ann Louise Gittleman, PhD, CNS, has always been a trendsetter. She has the uncanny ability to pinpoint major health concerns and provide solutions years ahead of mainstream medicine.

Highly respected as the grande dame of alternative health and award-winning author of over thirty books, she single-handedly launched the detox diet revolution in her 2002 *New York Times* bestseller *The Fat Flush Plan*, which spawned a series of five additional Fat Flush books and was featured in *Newsweek*. A Connecticut college and Columbia University graduate, she was recognized as one of the top ten nutritionists in the country by *Self* magazine and is the recipient of the American Medical Writer's Association Award for excellence for her book *Super Nutrition for Women*.

Ann Louise forged new ways of thinking about obesity early on in her career. She was the first to proclaim that obesity was caused by the lack of the right kind of dietary fats and the wrong kind of carbohydrates in her book *Beyond Pritikin* in 1998, where she wrote that the fat-free, carb-rich diet model was creating metabolic syndrome, sugar cravings, and fatigue. Always ahead of her time, she has set the pace for new health protocols over the last two decades with a myriad of breakthrough books, including *Get the Sugar Out*, *Guess What Came to Dinner?*, *Parasites and Your Health*, *Your Body Knows Best*, the *New York Times* bestseller *Before The Change*, *The Fast Track Detox Diet*, and *Fat Flush for Life*.

A savvy and dynamic speaker, Ann Louise has appeared on *20/20, Dr. Phil, The View, Good Morning America*, and *The Early Show*. Her work has been featured in a myriad of national publications ranging from *TIME* and *Newsweek* to *Glamour*, *InStyle*, and the *Oprah* magazine. Today, she continues to dedicate herself to carving out new landmarks in holistic health and healing. Her latest book, the highly-acclaimed *Zapped*, is a step- by-step manual for fortifying the body, detoxifying the home, and protecting yourself from the invisible hazards of electro-pollution.

Welcome to the summit, Ann Louise!

Ann Louise: Well, thank you, Carla! It's a pleasure to be with you today.

Carla: Oh, the pleasure is all mine! I'm so excited. Wow! What a background you have.

Ann Louise: Well, thank you. Thank you. And now we're moving into uncharted territory when we talk about the EMF.

Carla: Oh, yes. Oh, yes. New stuff for a lot of people to take in for sure. But not you!

Ann Louise: Well, you know I have been familiarized with EMFs and the perils of electropollution way back in the 1980s when I read a book called *Cross Currents: the Promise of Electromedicine*. And that was by Dr. Robert Becker, who was a very much I'd say, Carla, a pioneering researcher. And he was considered back then

to be a leading expert in biological electricity.

And this man was so ahead of his time that he was nominated twice for the Nobel Prize. He was an orthopedic surgeon, to be exact, and spoke about all of the emerging problems we were having because we were surrounded by all of these manmade frequencies, these energies from power lines, from radar, and microwave ovens. And now we've seen, in this day and time, we're even more exposed to these manmade frequencies. And I believe that they're creating problems that we have simply not recognized.

Carla: Okay. So when we were speaking earlier and getting to know each other, you mentioned the reason why you started working in the health field in the first place. And when I read in your bio just now, you've been into a lot of things that people are getting savvy to nowadays like the fat and carbs, looking at the body in a more functional way, and things that we just weren't really talking about then.

But now most recently you're investigating and you have investigated and written a book about eletromagnetic fields, in particular. Can you just talk about that for a minute? Like what made you start this whole journey into uncovering things that people just weren't talking about?

Ann Louise: You know, it's almost like having a sixth sense that there's something that is the underlying cause of all of these symptoms that nobody has been recognizing. And I was seeing so many people, Carla, that I began noting what their symptoms were, came up with my own hypotheses, and then found through the literature that what I was suspecting was true. And so it's simply wanting to really heal people and figure out those underlying causes that maybe hadn't been identified. And that might have been the parasites among us, the fungus, the mold, and now this unseen invader, which is the electromagnetic pollution that surrounds all of us.

So what had happened after writing all my books—I'm the author of thirty books on different aspects of health and healing—I was finding that for the past, I would say, the past fifteen years in my clinical practice, even using some of those underlying causes, whether it was too much sugar, not enough fiber, not the right kinds of fat, too many carbohydrates, the diet wasn't enough to really heal people.

And I had started seeing this very strange constellation of symptoms that simply defied diagnosis. And even resisted a lot of my other tailor-made diets and supplements and so forth. And that's when I had to start looking into the environment and figuring that there was a new environmental hazard out there, the EMFs among us, that perhaps was the underlying cause that could solve many of my puzzling case histories.

I wrote about it in *Zapped* and then found that the electromagnetic effect was really effecting and zapping us much more than we imagined because it didn't go away the way your sugar cravings went away or your ability to walk away from secondhand smoke or even problems like asbestos. This particular situation that surrounds us is with us twenty-four, seven. And it's one that nobody wants to talk about. I could tell you, it's not a popular topic because we love our gadgets. And we feel we can't live without them.

Carla: Yeah. And, too, what you just said earlier, unseen. Food we can see, we can taste, tummy trouble, blah, blah. We can't see electromagnetic fields. Would you just tell our listeners what electromagnetic fields are?

Ann Louise: Well, the electromagnetic fields are actually energy fields that are emanated and come from a variety of sources. We find that microwave radiation is coming to us from cell phone antennas, from radar, from wireless networks, from portable phones, from wireless speakers, from baby monitors, from wireless mice and keyboards, and even the smart meters that are in the house.

And then you get other fields that are coming from your home appliances or even indoor wiring and plumbing, maybe outdoor from power lines and sometimes even from transformers and what they call stray currents on underground water lines. That's where your EMFs specifically, electric and magnetic fields, are emanating from. And then there can be ground current, which comes into the home on plumbing fixtures.

We're surrounded by these elements, and there is an actual electromagnetic spectrum where you can see the longest and shortest and slowest frequencies, which are referred to as extremely low frequencies or ELF. So you've got your bands of ELF, your radio frequencies, your microwaves, your infrared, your visible light, your ultraviolet frequencies, and then your ionizing radiation, which we're all aware of is very dangerous. And that's the frequencies that we're getting from X-rays or cat scans.

So this, again, is invisible. Many of us can't see, can't taste. But we're feeling the effects in a variety of very strange ways because these electromagnetic fields that are very subclinical, shall we say, they can't accurately be measured. But they're very much felt by those of us that are electromagnetically sensitive, kind of allergic to electricity. And they have biological effects that have been noted by a number of very courageous and brave independent scientists.

Carla: Okay. So EMFs are dangerous, obviously, from what you're saying. And you did give us a little bit as a reason to why they're dangerous, what they do in the body. Can you give us a little bit more about what effects they have on our health and how these issues are especially problematic for children and teens?

Ann Louise: Well, basically what we've learned—and I've done a lot of research with regard to this—I think that what we're seeing is that the electromagnetic fields which are highly biologically active—they don't actually heat the body the way an ionizing radiation or the X-rays do—but the cells in your body really react to these EMFs as potentially harmful. And they shut down. And so it's almost like having a toxic chemical or heavy metal in the environment. And your DNA very specifically can recognize these fields at very low levels of exposure. And the DNA becomes tainted. The DNA breaks and can't even reproduce itself. So on a very basic level this is affecting us.

A number of scientists have suggested that exposure to EMFs or even your wireless phone, your table phones, your computers, anything that is wireless—very specifically, the wireless router, as well as the smart meters in the house—have the ability to change cell membrane function. And we have found that there are major changes in calcium metabolism where you start to lose calcium from the cells. And all of this starts to scramble communication between your cells.

So you've got problems in terms of cell membrane function. And then the EMFs themselves, they produce what we call heat shock protein, so as if heating were occurring when it is not. And all of this breaks DNA. It creates blood-brain barrier leaks. It increases free radicals. It increases cellular stress, premature aging, sometimes learning impairments, headaches, fatigue, sleeping disorders, melatonin impairment.

And you know, Carla, there are dozens of studies that have found that even the lowest levels of these EMFs can depress the body's production of melatonin, which is very important because melatonin, to me, is a hormone. It's considered to be the Dracula hormone because its production peaks at night, and it helps us sleep. It protects us from disease.

And it was first noted that melatonin was effected by EMFs when studies began surfacing that found that night workers experienced higher rates of breast cancer than those who held down regular daytime jobs from nine to five, for example. And we now know that melatonin can increase the body's effectiveness of its own killer cells, which then fight off foreign invaders.

So it's very important that we have enough melatonin because it bolsters the entire immune system. And it increases the antioxidant activity of glutathione, which is perhaps the most important antioxidant in the system. It's specifically anti- inflammatory, and it helps to repair cells. And so all of this is very critical because we see such a growing proliferation of all these immunosuppressive diseases that I think may be connected to this melatonin suppression.

So all of this then circles back to children and teens who aren't sleeping the way they should. They've got all kinds of electronic equipment in their rooms. And it's not just he blue lights that are emanating from the electronic equipment. But it's also the energy. It's the biological effects of some of the energy waves that are coming through—the non-ionizing electromagnetic radiation—that most parents are just completely unaware of.

And it's a shame because you've got very erudite and very austere and very impressive organizations like the American Academy of Pediatrics, as well as the Canadian Society of Pediatrics that have been very clear in terms of how many hours they think infants and children and teens should be exposed to technology. And they have stated unequivocally that from the age of zero to two years, children should not have any exposure to technology. That's zero. So you can't be taking your kid on a walk and having that smart phone right near his head.

And then for three to five years, that time should be restricted to about one hour a day. And from six to eighteen years, technology should be restricted to an exposure of two hours a day. And that's almost impossible, given the fact that so many schools are now going wireless. And so children and youth, they're probably using about five times the recommended amount of technological advances than we

used. And many of them are then facing immunosuppressing and life-threatening diseases.

And I hate to be so paranoid about this. But when you start reading the research and the literature that nobody's talking about because we have such major cell phone and telecommunication industries in this country, then it becomes really a little off-putting in terms of all this.

And I think I shared with you that there was a presentation that was done in September of 2008. It was held at the Royal Society in London. And it showed that children and teenagers are about five times more likely to come down with some kind of brain cancer if they use mobile phones. And this risk may, in fact, be underestimated because the studies that were used don't show the risk of phone use over many years. And so there's a major risk to young people who are using cordless phones, or they're incurring a five times greater risk of certain brain cancers.

And ADD and ADHD and all of those issues that we're seeing with kids as well as autism, which I think may also be connected to the use of all of the technology and maybe even ultrasounds during pregnancy. So there's a lot to be said about this. And Harvard University just published some research that is connecting the rise in autism with a proliferation of all of these electromagnetic fields that are truly part and parcel of our 21st century environment.

Carla: And so have you seen any studies about infertility and the use of like having your cell phone in your pocket?

Ann Louise: Well, there's a certainly a decrease in sperm mobility and motility among men if they keep their cell phone in their front pocket. Yeah, so we've seen that as well. And you really shouldn't be keeping any kind of not just phone. But I wouldn't be keeping my laptop on my lap because wherever you're keeping a wireless device, you're, in fact, radiating that part of the body.

Carla: Okay. So I just want to stop. We were talking about specifically for children and teens and why this might affect them more. So can you explain the physiology behind why electromagnetic fields can actually affect children more profoundly than adults?

Ann Louise: Well, they're affected much more profoundly because they're not just little adults. They're not just little adults. They're undeveloped human beings at this point.

And then I think where the real problem comes into play is that their brains and their nervous systems are underdeveloped. And so because the brain and the skull and that whole area is so permeable and it's so fluid with ions and water, that those become conducting elements to the electromagnetic energy. So they become much more subject to adverse effects. And I think we're seeing that in terms of the great degree of ADD/ADHD behavioral symptoms and so forth. It's almost as if our kids had been exposed to digital dementia, so to speak. And I believe that term has been used quite a bit.

So we have found that studies even suggest that a cell phone call that will last just about two minutes can cause brain hyperactivity. And that brain hyperactivity and over response can persist for at least an hour in children. So I guess what we think is that because children are growing so rapidly and their cells are dividing at breakneck speed, the more cells that divide, the greater the risk for damage at certain critical junctures.

And because we have seen that EMFs also cause breaks in the blood-brain barrier, children are simply more permeable. And that's because of their higher concentration of the ions in the fluid in their brains themselves.

And so having any kind of breach in the blood-brain barrier allows all kinds of toxins as well as oxidative stress to start to further damage nerve tissue and then it has adverse effects on brain hormones like dopamine and serotonin. And the idea here is that it's not just children who may be exposed, but they're exposed even before they're born because they can be exposed to the pollution that a mother absorbs through her cell phone use or to exposure to high EMFs at home or on the job. And so it's very important that you are careful, especially during pregnancy.

And I have to tell you that there was a 2008 published study that showed I think they worked with more than 13,000 children. And it found that women who used a cell phone two or three times a day while they're pregnant are more likely to have kids with behavioral problems and difficulty controlling their emotions. And so in the same way that you protect your baby from toxic exposures during pregnancy, you're not going to want to take X-rays during pregnancy. You don't want to use a lot of nail polish/nail polish remover. I think it's vital that you protect your baby from electropollution as it can impact the kid's nervous system long before birth. And so most

importantly to me, you've got to curtail heavy duty cell phone use during pregnancy. And it has been related, by the way, to a risk of miscarriage and birth defects.

So all of that comes into play especially when you're pregnant and then making sure that your kids simply are not playing with your smart phone just as a little entertainment piece. And it's very difficult. To say this seems almost sacrilegious when you see how prolific technology is today. And you keep kids playing. And they've got their little iPads. And you keep them really entertained with videos and so forth. But we think all of this is creating some sort of real difficulty in brain function and in terms of nervous system function.

And I think that if you take a look at your child's brain on EMFs as I have, then you're going to see how the rates of autism and learning disabilities have absolutely soared in the last, I'd say the last twenty years. It's something like one in fifty right now. And so much of that really mirrors and matches the proliferation of all of the electromagnetic fields, which is about a hundred million times more than our grandparents were surrounded with.

Carla: Yeah, can you explain that term again? I just want to go back to that term you said "digital dementia." I had never heard that before. You know when you need to just put a word or a phrase or you need to name something. And it's goes, "Whoa." It just resonates with you. So can you just explain what that term is used to mean?

Ann Louise: Well, it's the overexposure to technology, which starts to really effect the way a child interacts with the environment, with other human beings, and becomes really addicted to the Internet, to the cell phone, to technology, to the effect that many social skills are starting to become very deficient and very lacking.

So I see it just in terms of these kids that are interacting with their phones twenty-four, seven. But you also see it with adults, to be quite honest with you, when you're going out to dinner and everybody puts their cell phone on the table and starts to text one another at the table rather than interacting with one another.

So there's a lot to be said that may have nothing to do with the aberrant radiation and the non-ionizing, but nonetheless biologically active non-ionizing radiation. It's just you're interacting with a machine. And many of our social skills start to decline. So that's really problematic.

And maybe that's the reason that so many other countries do not allow children to use cell phones. I mean, they have seen that it's not just the brain cancer, but that they're simply more physiologically sensitive to the energy, and it effects the way that they relate with other human beings. So all this is a really big deal as far as I'm concerned.

Carla: Yeah, and you know what? I would agree. They're sort of addictive, these devices. Actually, not sort of. They are. And so you have that on top of the fact that they're actually physically altering DNA and bodily functions and creating all kinds of havoc in the body and disease. It's like it's compounded by that. But not only there's this addictive element, and there's a social element as well. So it's really big.

So when you said earlier that you don't want to be doom and gloom—I don't know the words you used—but this whole seriousness. But really this is a truly big issue that our children have to deal with, especially with everybody thinking, "Kids will be kids." And it's become part of just being a child in the world, having a device. Everybody's got one.

I'm an advocate of playing outside and talking to your friends, that kind of thing. And I'm always talking like that with the kids that I'm around whenever I'm around them.

But I still see those very kids in a group texting each other while they're together or hunkered over some kind of a device or other. And everybody's got their own and are doing their own thing. And it's like they're just sucked right in. And it's constant. It's a constant inundation of these EMF radiation.

Ann Louise: Well, it is. And then if you start reading the research. And a lot of this I've written about in greater depth in *Zapped*. You'll see that the cells actually become interrupted. The cellular communication between one another becomes interrupted. And so your cells get overwhelmed by all kinds of messages from inside and outside the body because without enough calcium remember this creates calcium leaches in the cell membranes. Then all the neurotransmitters become very scrambled. And then chemicals start pouring in from your ruptured cells that damage your cellular DNA. And then this starts to disrupt normal cell division. And it creates oxidative stress that further damages DNA and many other physical processes. So all of this has a domino effect, so to speak.

And you can talk about it. And then people go back to just texting one another, which is a better way of communicating certainly than by using a little microwave oven—which is what a cell phone is—right around your brain, near your head, for example. And I have to tell you that all of this really drove home with me because I developed what they call a salivary gland benign tumor, although I didn't know what it was until we had it removed. I had been living on a cell phone. So I'm kind of a reformed cell phone addict to be quite honest with you.

And when I was living on my cell phone, I was doing interviews twenty-four seven. I was communicating with it. It was entertaining me. I mean, that was my mode of communication, which is true with just about everybody in this day and time. And there were no smart phones back then. This was in the early 2000s, 2003, 2004, and 2005.

But I was living on it and using it specifically on one side of my head. And then when I developed this little...It was right beneath the jaw line. It was this little bump and lump that got bigger and bigger. And I thought well maybe it was a lymph node. But why should I have a lymph node there? I had it removed.

And the surgeon at that point—this was 2005—didn't know what it was until the lab results came back. And they said it was a benign carotid gland tumor. And then when I started researching my book, I learned that there was quite a lot research that had come out particularly by the Israelis that showed that extreme use of the cell phone on one side of the head created a near epidemic of these benign—as well as malignant—carotid gland tumors.

So I knew that I was very hypersensitive to electromagnetics. Even before that I would go into stores and then feel a little uncomfortable when the fluorescent lights started blinking on and off. But I never realized the extent that my own system had become really allergic to the digital age, so to speak. And that's kind of true with a lot of us.

I mean it's very interesting because when you start looking at some of the symptoms of electro-hypersensitivity that I believe our kids have—whether it's numbness in the fingers, feelings of warmth, facial flushing, headaches, dizziness, nauseousness, deafness, blurred vision, blistering skin—severely effected people cannot even use a cell phone at all at this point because they get heated so prolifically from the use of the cell phone. It will heat up the ear and heat up a certain side of the head. So I'm finding that many of us are allergic, but aren't realizing where the source is coming from and can even be allergic to those high—or they're called the energy efficient light bulbs that many of us see, the CFLs—the compact fluorescent lights.

So all of that gives off a kind of form of radiation. And many symptoms that we're experiencing are very identical to radio wave sickness that we've identified as far back as the 1970s. So there are neurological implications. There are implications in terms of the cardiac system and the respiratory system and even the digestive system in terms of enlarged thyroid and abdominal pain and the eyes and dehydration. And nose bleeds are very much connected they say to EMFs, as well.

So it's really scary. And if you're traveling in a car with your child, and they're playing with your cell phone or they want to make calls, that's not the best place to make calls because you're in a vehicle that is metallic. And all of that starts to concentrate some of the radioactive or the non-ionizing radiation waves.

If you're in an airplane, it's the same thing with the metals. The waves just start bouncing off of the metal, and then they can concentrate the exposure of some of that non-ionizing radiation, which, again, is very biologically active. And that's why we get so tired on airplanes in this day and time. I don't think it's just regular jet lag. I think a lot of this is EMF overexposure. So it takes you twice as long to get over an airplane flight as it did ten to twenty years ago.

Carla: Right. Wow. And that's very serious stuff. And like we were mentioning before, you can't see this, right? We just think, "Oh, you know, it's jet lag," or, "I'm just tired," all this stuff. "Well, I'm not really sure why. I've just got a headache for some reason or another." And so it's really hard to understand like this is something that's real.

And even if we could think and shift our thinking about EMFs and our exposure to EMFs...Liken it to something like smoking where it's just polluting your environment. And so I like it when you use words like "allergic," right? So you're allergic to EMFs because that really makes it feel and seem like a real thing. You can be allergic to it. You can have a sensitivity to it. EMF pollution, using that word "pollution," because those are all terms that we take as something that's physically real in our environment.

Ann Louise: Yes. And you know

what's disconcerting is that other countries are much far ahead of the game than we are. They're much more aware about all of these issues, particularly when it comes to children and protecting children. So I think that what we're moving towards here is a realization that we could be hypersensitive to the electromagnetic world that's around us.

And there's a variety of symptoms that are connected to electromagnetics. It can affect the heart rate. It can affect the eyes, the ears, the brain, the skin. Just about every area of the body is affected so you never know exactly what's going on. And then, of course, when you see the proliferation of brain tumors, that we're not talking about the way that we did. However, for those of us that have friends that work on Wall Street that are forever surrounded computers and phones in all ears, then you know that there's an over exposure.

And I think that's what the problem is. And there are no safe havens because, again, there might have been a problem years ago with lead or asbestos or tanning beds or cigarettes. And you could simply remove yourself from a certain environment and you weren't exposed.

What's happening now, however, is that you've got the exposure twenty-four, seven if you've got your wireless router that's plugged in and not disabled at night or if you're living in a home that has a smart meter. So you've got all of those exposures. And that's why it's more important now than ever to really support yourself with antioxidants perhaps with melatonin or with this new type of…It's not really new, but it's certainly it's an old remedy that we're now researching and have some science behind. And that's the whole concept of earthing, whereby you're protecting your system from these low-frequency electromagnetic fields by neutralizing some of the positive charges with the negative electrons from the earth.

And it's interesting because earthing has taken off as quite a phenomenon. And I had the ability to, in 2010, I believe, when the earthing book came out, to really review that and learn firsthand about the healing response that it takes in the body and then starts when a person becomes grounded and whether that means standing or sitting on the earth or grounded using electrodes that are placed on the soles of the feet or certain types of sheets that you can sleep with. It's really interesting because this is able to help pain. It's able to speed wound healing. It's able to decrease inflammation. And it takes only twenty minutes a day for a person to really get that healing response when they start to be grounded. So there are lots of things that can be done. This is a big deal that has just taken off.

And rather than focus on EMFs, I remember talking to the lead author, Clint Ober, about this who was in the telecommunications industry early on. He said, "You know, people are not going to give up their gadgets. I can just tell you everything is going to be digitized in the coming years." This was 2010. So telling people to do without their cell phones or their iPads, as well as their routers and to live far away from cell phones towers, it ain't gonna happen.

So we've got to be very protective and very positive and then protect them with all of these antioxidant-rich electrons, which he believes is a major deficiency. He believes most people are simply electron deficient, which would provide you with the ability to neutralize all of the toxic elements that you're getting when you're exposed.

So I include a little bit about earthing in my book. I talk about that certainly on some of the websites that we have that are connected to *Zapped,* AreYouZapped.com. And I have found that that's been very helpful because what you can do at night is to make sure that in your bedroom, as well as that of your children, that you remove all electronic equipment and that you never sleep with your cell phone.

Your cell phone just shouldn't be your alarm clock. You don't want to have any of these digitized and digital gadgets near your head. You want to make sure that you're as far away as possible. Make sure that there is no frequency of use, and that the duration of time is as less as can be reasonably expected. Because it's really prolific use and constant barraging of the system that's the problem where you don't have a chance to rest and rejuvenate and regenerate, which is what you need to do when you sleep at night, which is why I use grounded sheets.

Carla: Right. So the proximity is extremely important, how close it is to you, and the duration of use. And also, too, you know, you mentioned—

Ann Louise: And the frequency.

Carla: And the frequency. And so you also talk about, we're talking a lot about cell phones, but what about cordless phones?

Ann Louise: Some of the research…There was a small

study that was done. And we have found that the cell phones with individuals that have problems in terms of their heart can be very deleterious to arrhythmia. And so heart rate variability, thickness of the blood, your problems that people are having in terms of very consistent beating of the heart may in fact be more deleteriously effected with cellular phones and cordless phones rather than your cell phone because that's like having a mini cell phone tower in the privacy of your own home.

Carla: Yeah. And many of them are right beside people's heads.

Ann Louise: They are. And many of our senior citizens simply shouldn't have a cordless phone. And then you say, "Well, what are they supposed to have?" And that's why I'm so...I mean, I'm talking to you right now on a corded phone.

Carla: You're on a landline, right?

Ann Louise: I'm on a landline. But you have to be careful because there's some kinds of landlines or corded phones that actually look as if they're landlines, and they're DECT phones. So you have to be very careful to make sure that these are not cordless phones in disguise.

Carla: Okay. Okay. Yeah.

Ann Louise: And so you've got to be very astute to all these things because none of this is going away. You just have to learn how to shield yourself. You have to learn how to put smart guards on your smart meters. You have to learn how to use the earthing equipment or the earthing sheets in terms of sheets in terms of sleep. And you've got to really reduce your exposure whenever you can.

And by all means there's certain kinds of cell phone etiquette I call it, cell phone or cordless phone etiquette, that you need to use when you're traveling. I mean, you really shouldn't be using the cell phone as a communication device, at least besides texting unless it's absolutely essential. And if you do need to use something, you should be using the speakerphone when possible to keep the phone away from your body and your skull. And if that's not possible, then the other thing is a plastic air tube earpiece that reduces the radiation to the brain. And all of that is available in many of our EMF protective stores these days.

And I'd say that the other issue that you need to do is just make sure that your cordless phone is not that DECT phone, which is a digitally enhanced communications technology phone that you'll find because then you're using something right directly near your brain. And you're going to want to also make sure that you use a headset whenever possible. They don't always provide the best protection, but they certainly provide some protection. And that's where the air tube headset comes into play, probably with an additional extension cord. That would be my recommendation. And then, of course, don't allow your kids to use the cell phones as much as possible.

Carla: Well, yeah.

Ann Louise: And if you're pregnant, don't carry one around with you. And never put that cell phone in your bra. You don't want to carry that around. We're seeing all kinds of tumors that are the shape of cell phone that are emanating from that kind of usage. I wouldn't use the cell phone when you're driving because you're really exposing yourself to much higher levels of this non-ionizing radiation because you're constantly having to make an ongoing reconnection to the towers. And you're in a metal environment so that you've got all these internal reflection devices that are just reflecting right back to you.

So there's quite a lot that needs to be done here. In terms of your habits, and just like brushing your teeth on a daily basis. This has become part and parcel of life. Then you just have to watch yourself in terms of some of your cell phone etiquette and so forth. And I would say, too, that you should always keep that cell phone charged. If you're going to use it, make sure to keep it charged because when the signal is not strong then the phone emits a lot more radiation.

I would also say that you've got to turn off your mobile phone devices when they're not in use or you just switch to airplane mode as best you can. Make believe you're traveling on an airplane and switch to airplane mode. And you should also turn off your Bluetooth or your wi-fi when not in use. I would not frequently use a wireless tablet or laptop if possible because, again, wherever these agents are placed, wherever these tablets or laptops are placed, that's where your body's going to become radiated. And so that's not a good idea. And at night, we always turn off the wireless router. I think that's very important. And that also goes for making sure that your microwave oven, if in fact you still have a microwave.

Carla: I don't.

Ann Louise: Well, we don't either. But for those that do, you really shouldn't be in the same room when you're microwaving something. Isn't that something?

We've measured microwave ovens. And they all leak because some of the doors don't close as successfully as they used to, especially with frequent use. So there's always a leakage. And that can really be affecting the eyes or the ears.

Carla: Right. And also microwaves also ruin the food.

Ann Louise: Well, it effects the enzymes of the food. So there's another nutritional reason for that. And when you talk about nutrition, that's why it's all important to make sure that there's enough vitamin C in the diet. A lot of magnesium, because of the way in which calcium is lost from the cell membrane…So you want to make sure that you're supplementing with magnesium that allows the calcium to stay in the right place. And you also want to make sure that you have enough selenium, potassium, sulphur, manganese, chromium.

And if you're not sleeping well at night, then taking a little melatonin, maybe one to three milligrams would be very, very helpful because, as I say, electro-pollution seriously reduces the body's production of melatonin. And that's exceedingly important in terms of protecting your system against cancer. I'm also a big believer certainly in vitamin D and making sure that you have enough other antioxidants in the diet that will help to protect against the positive free radicals that you're getting from all different sources in terms of the electromagnetics and the toxins in the environment and the chemicals. So this is just one more element in terms of your environment that needs to be protected against.

And when you have people coming to the house to check for mold or check for radon, they should also do an EMF sweep of your house and measure and see if there are any fields that are coming from unexpected sources. And then you can use protective shielding devices or moving around your furniture so that you're not as close to some of these emanating devices as possible. The refrigerator has a very large magnetic field because of the motor, for example. So you want to be very careful that you don't have a couch on the other side of the wall where you place your refrigerator.

Carla: Yeah, because it passes through the wall. The wall is not a barrier for EMFs.

Ann Louise: Oh, it definitely passes through the wall. And I have a chart in the book which is very interesting because it gives the kind of breakdown of the measurements of the fields and the magnetic field measurements that we find with some of our most common devices.

And you'd be very surprised that hair dryers, particularly larger hair dryers, provide a very large magnetic field as do electric shavers and coffee makers and sometimes electric slow cookers and food processors and garbage disposals. But that refrigerator motor is one of the highest. And you want to be careful that whenever you have any of these appliances that are plugged in, you want to unplug them. They could still be emanating fields.

So you're not just getting this from the wireless or radio frequency fields from some of your computers or your phones or your cordless phone, but also from electricity itself and electrical appliances. I remember when you used to go into your grandmother's house. And she'd always be unplugging all of the devices. They had this internal knowing that this wasn't a healthy thing to do. And we need to do the same. And if you're asleep at night and you've got a lot of electrical appliances in your bedroom, you want to disconnect. You want to unplug at night to make sure that none of that is being activated and affecting you.

Carla: Right. And so what's a safe distance from a refrigerator?

Ann Louise: Oh, I'd say about six to eight feet.

Carla: Right. Your child's bedroom could be right beside the kitchen or right above the kitchen upstairs. So furniture placement, all that stuff needs to be taken into account, correct?

Ann Louise: Yes, we call it electronic feng shui. And I talk about it in the book where you can zap-proof your house. And you go into the bedroom, and you see what's in the bedroom. You go into the kitchen. You go into the great room. You go into the bathroom. You go into your office or your den, your living room, family rooms, etc. And you can just have advanced zap proofing where you just start moving things around and you're conscious of it.

Carla: So if people are listening and going, "I don't know where the heck to start. I don't know what to do. This is very overwhelming to me," they can get all that information from your book. And it's all laid out.

Ann Louise: It's all laid out. And because I never had a real scientific understanding of all

of this—and I try to explain it in layman's terms—it's much more easy for a layperson to understand it. I mean this is not woo woo stuff. This is highly researched, and the problem is that you're not hearing about all the independent studies because the cell phone industry is not investing in any of the independent studies. So that's why you don't hear about it.

And those independent, very courageous scientists, as I mentioned before, that are well-published like Henry Light, the University of Washington, or even Dr. Martin Blank, you can look them up online and see all of the information that they have where they prove the biological effects of some of these frequencies and how deleterious it is to the system. And these people have run across a lot problems from the cell phone industries themselves so they're very brave and we need to support them.

And it's just one more thing to take a look at. And you just want to make sure that you're doing everything right in terms of your children, your unborn child, and even in your home. And that's where healthy food comes into play. You're not going to want to have a lot of junk food. You want the right kind of fats that will fortify the cell membrane so that the body can be fortified against these things. And that's where the right kind of oils come into play, saturated fats, your coconut oil, your high omega three fats from your fish oil and your flax oil. All that's important because the right kind of fat can also hold calcium in suspension. And you want that so that you're not affected with the calcium leaking that goes on in the cell membrane when it starts to rupture.

Carla: Right. And so this whole premise of the summit itself is that there's not only one element of health that we need to be concerned with with our children and our teens.

There are a lot of things. But they all work together, right? They all have a part in that. Yeah.

Ann Louise: Well, they do all have a part. But this is the big elephant that's dancing in the middle of the room. This is what nobody wants to talk about that everybody wants to ignore. When you're seeing rates of autism soar. And everybody thinks it's the vaccines. "No, it's the molds." "No, it's the allergies." Well, what really people are exposed to twenty-four seven is technology and you have to be convinced that there's a biological deleterious effect and there's nothing that we're doing in terms of the government that's really protecting you. It's every woman, man, child, and unborn child on his own is really what's going on here.

And that's why I think it's so important to fight wi-fi in schools and communities and even at home as best you can. It's why you need to text rather than call and use the safe head set and no phones in the bedroom and then you teach the kids to keep the phones away from their body while they're turned on because all of those incoming calls and the texts, by the way, they cause this burst of radio frequency that can penetrate the body. You need to stash your phone probably in your purse or a backpack. You simply don't want to have it on your body. That's really what the element is.

Carla: Right. And also, too, I'd like to return to this idea of earthing because that's something that seems to be a simple thing to be able to do. And it's protective. And it also is healing. I guess, when I was reading about earthing, you sort of think about when you're on the beach, right? You go on the beach. And you kick off your shoes. And you're by the water in the sand, and you feel amazing. There's actually a physiological process that's happening, a healing that's happening. And I suppose we could be considered antennas, right?

Ann Louise: Well, we are antennas because there's so much water and so many minerals and those are conductive substances that are in our system. Yeah, very much so. And that's why earthing can be so regenerative, specifically with the sand and then the beach and in the country. So you want to be able to do that if you can on a daily basis. But those of us that live in certain environments, we can't do that.

And that's why there's now these devices that you can use. There are pads when you're sitting at your computer. There are mats that you can use. There are wristbands that you can use. There's sheets that you can use that have conductive silver threads. You can just plug it into the wall in terms of the electric grounding aspect that's in the house, the electric ground, so to speak. Or you can ground it directly outside. There are all kinds of ways to do that. And the research is pretty incredible and pretty impeccable.

Clint Ober has invested quite a lot of time, energy, and money to get his double-blind placebo-controlled tests out there. And we now know that there is definitely science behind the mechanism of earthing. And he suggests that the reason so much of this is needed is

because of the revolution of the 1960s in which we stopped wearing leather- soled shoes. And we are now using plastics and all kinds of rubber soles, which are not conductive the way the leather was. And so in effect we've become unconnected. We've become disconnected to the earth.

And when we become re-connected, your whole bodily system works much better. The heart starts to beat better. The thyroid functions much better. I mean, look at all the problems we have with thyroid in this day and time. The electromagnetics in the environment definitely have an effect. When you start to earth, everything starts to normalize, including your melatonin levels with the earthing and grounding, as well as cortisol levels. So your body isn't as much under constant stress, the stress and strain of the stress proteins that are affected when you're exposed to electromagnetics. So it's very protective. It's almost like having a protective bubble. So I've got my foot on one of those grounding mats even as we speak.

Carla: Actually, I have my hand on one. Isn't that funny?

Ann Louise: Yeah, right now. Then this is what you do. It just becomes part of your lifestyle. And, of course, then you're sleeping on the sheets that we have or the mats that you can use or the pads that we can use, as well. So it's very interesting what's going on. And I think that all of this grounding information—and certainly the technology that's been kind of revived—is important. And we have to be very grateful for Clint Ober for coming up with so many of these things. And we now have, I think, mattresses that are grounding mattresses, which I think are very interesting.

Carla: I actually spoke to him about potentially grounding our house, right? And he said the technology was quite a ways away. And it would cost you quite a bit of money right now. But when we were building our house, I had spoken to him and talked about some of these things because there are ways that you can set up how you live in your home, like you were saying, the feng shui. Those things can be done if you can research it and get a bit of information. Yeah.

Ann Louise: All that can be done, as well as placing the furniture in certain locales, making sure that you're not over a lot of fans. I mean, there's all kinds of ways in which we can protect ourselves. And you just do this as naturally as you would eat the right kind of foods on a daily basis. It just becomes part and parcel of what your life is like.

But, you know, when you take a look at what's in the house these days, you'll see all of the devices that are electrically or digitally or wirelessly now driven, and it's just amazing because if you went into your grandparents house, there might be twenty or thirty items that you could name that have some sort of an electrical connection. But if you go into our homes in this day and time and just take a little tour as I do through the book and take you on a digital tour, you're seeing all the proliferation of so many devices. I mean we're surrounded. We're surrounded and dependent. That's really what's kind of scary.

Carla: Yeah. I just want to mention two things just to make sure that we don't skip over anything without being clear. Earlier you mentioned a protective device called, like not a protective device, but something you could use instead of the headset or putting the phone by your head. You said an air tube headset. So I want to make that clear. When you said headset, you didn't mean the traditional headset with the wires.

There is such a thing as an air tube headset, which actually I'm using right now. And you might not have the sound exactly the same. But they still work really well. And so it's an air tube. It's not a traditional headset that you were saying to use, right?

Ann Louise: It's a plastic air tube earpiece. Yeah. So if that's what you're using, yes. So there's like a little bubble thing that's there. And you're not directly connected to the phone through that.

Carla: Right. And the traditional headsets, you are actually. And it's going directly into your head.

Ann Louise: It is going directly into your head. So that's not what we want. We want to get all of this away from your body and away from your head, most specifically and most directly as much as possible.

Carla: Yes. Okay, good. Okay, I just wanted to clarify that. So, there's a lot of information here. I also, too, you were talking about Clint Ober. He wrote a book called *Earthing*. That's what it's called, right? So for anybody who wants to look into his work.

Ann Louise: Yes, yes, and I talk about earthing in *Zapped*.

Carla: Okay, *Zapped*. And so is there anything else that you'd like to mention? There's a lot of information here. And I think that you've done such a fabulous job of covering all of the main issues and giving our listeners, our parents

and caregivers, some really, really good tips and empowering tips on how to protect our kids from the EMFs in the environment, and actually maybe even some of the people might not have known that this was even a real issue or a health concern in the first place. So that is amazing. And I thank you for all that.

And so for people who really are maybe even reeling from all this information, there are lots of resources to research. And one of them, and one of the best ones, would be your book called *Zapped*. And so be sure to check into that. Pick up a copy of *Zapped* because Ann Louise goes into great detail about all of this and will really help you to get sorted. Is there anything else you'd like to suggest for research or anything you'd like to tell us about what your next projects are, Ann Louise?

Ann Louise: Well, the next projects are really getting this information out as best that we can. And I'm also going to suggest for people that really need the research, research in terms of all of the studies, there was a wonderful work that was first presented, I think it was 2009 when it came out. And it was updated in 2012. And that is the Bioinitiative Report. And if you look online at BioinitiativeReport.org, I believe is the URL. BioinitiativeReport.org. You will see that there has been an enormous amount of documented studies that connect the EMFs that we're talking about from the wireless devices to the electric devices, and that all of this has been connected to a great variety of current diseases and disorders that we are now looking at. And so I want to make that available for people.

And I also want individuals to understand that in 2011 the World Health Organization's International Agency for Research on Cancer warned the world of risks from the radiation emitted by cell phones, from Wi-Fi, and smart meters. They classed all of this as a class to be possible carcinogen. So this is being made known throughout the world. And many of our researchers feel that sensitivity to these electromagnetic radiation emissions is the emerging health problem of our century, and that it is pretty imperative that parents as well as practitioners and governments and schools learn much more about it because it's felt that human health stakes are significant.

Some people consider this the greatest biological experiment of mankind, by the way. So we go to all different elements there. Yeah. And there are many prestigious organizations—the American Academy of Environmental Medicine, The American Academy of Pediatrics—have all come out with mission statements and declarations about how so much of this is an important health issue. And it can cause acute and chronic health problems.

And it's being looked at with more and more concern by healthcare practitioners everywhere. So to me this is probably the emerging public health issue of our time. And that the human brain is especially susceptible to the environmental insults that are coming from all of these EMFs. And that's why I think we have an epidemic among children of decreased motor function, of hyperactivity, diminished cognition, diminished learning. That's where all this digital dementia is coming from in terms of the underdeveloped interpersonal skills, disjointed experiences, and even brain damage. So it is considered a new condition, digital dementia in children.

Carla: Wow.

Ann Louise: It's been coined before. So I just need to say that all of that is there because you'll go out into the world and see that all of this starts to be poo-pooed. And everybody says, "Oh, this is nothing." You've got naysayers or people that don't know science. And this is what they're saying. "This is impossible." Just go online and take a look at Marty Blank's YouTube videos where he talks about how cell phones do damage. And he just wrote a magnificent book called *Overpowered*.

So that's the type of thing you need to look at which will show the DNA and how it breaks and how it's damaged and so forth. And it cannot repair itself because of this damage. And a lot of this was known way back in the '70s. Nothing was done about it. There's a lot of money involved. And the communications industry, which a trillion dollar industry, simply doesn't want all of this found out. But we really have to take our own matters of health into our own hands without being terribly paranoid and negative.

Carla: Yeah, great points. And if you're one of those people that get it. You get it already. You just want to get on with things and make a change, curbing use, knowing that cell phones are not toys, keeping that proximity from these devices a little further, the duration of use as little as possible. And consider

earthing and other products that help you to get grounded and help your body.

And other health things such as social, speak to people. Go and hang out with your friends instead of texting and all that sort of thing. So all those things that go together for all of us who want to make some kind of change in that regard can really make a huge impact.

And I thank you so much, Ann Louise, for all of your information. You are just so passionate about all of this stuff. And we could do like twenty interviews, I think, with all the stuff that you are an expert at. So I would love to do this again maybe for the second Children's and Teen Health Summit.

Ann Louise: We'll have some positive information at that point.

Carla: That'd be awesome.

Ann Louise: Unfortunately, I hear myself. And I say, "This is all gloom and doom." But you know something? It's not going to go away and putting your head in the sand is not the answer. So we have to be very proactive and realize what we're fighting, what we're up against, and be as proactive about this as we were about lead and asbestos and tanning beds, as well as GMO foods. To me this is our GMOed environment.

Carla: Well, I for one, Ann Louise, as a warrior mama, appreciate your proactivity. So, thank you!

Ann Louise: Well, thank you.

Carla: And thank you for being here with us. And I appreciate your time. Take care.

Ann Louise: Bye-bye.

Connection Between Headaches and Chronic Disease

Erin Knight, FDN-P with Jay Davidson, DC, PScD

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The purpose of this presentation is to convey information. It is not intended to diagnose, treat, or cure your condition or to be a substitute for advice from your physician or other healthcare professional.

Erin: Hi, and welcome to the Chronic Headache & Migraine Summit. I'm Erin Knight, one of your hosts. And today, we'll be hearing from Dr. Jay Davidson. Dr. Jay Davidson is a doctor focusing on a natural, functional medicine approach. He's also a popular speaker, #1 international-bestselling author, husband, father, former radio talk show host, and church elder.

Dr. Jay is admired for his ability to bridge the gap between the scientific health community and the lay person. His vision to see all of the details and recommend simple, straightforward instructions to his clients has gained him tremendous respect among his colleagues. He's an expert on genomics, detoxification, and chronic Lyme disease so I've invited him to this event to help us understand the connection between these things and chronic headaches and migraines. So welcome to the summit, Dr. Jay Davidson. Thank you so much for sharing with us today!

Dr. Jay: Yeah, thanks for having me on, Erin. It's a pleasure to be here.

Erin: So I hear you started out in a chiropractic role, as a chiropractor. How did you decide to get into functional medicine? What prompted that?

Dr. Jay: Yeah. It definitely was not something I just woke up and said one day, "Hey, I'm going to get into functional medicine and into a whole new world." It was more just based out of my wife's health struggles. So my wife and I graduated from chiropractic school. We opened an office in Wisconsin—Milwaukee, Wisconsin area, and helped a lot of people, very large volume, over 600 visits a week. And was, I would say, successful in helping a lot of people.

And when my daughter was born in 2012, on July 4th, the bottom fell out. My wife couldn't heal. Everything just stopped and changed. And, of course, so she had Lyme disease when she was seven years old. And they didn't understand what it was and, after a while, figured it out. And ended up, she was in a coma for six weeks. And there was just a lot of health issues in her past.

And as soon as that bottom fell out, one of the first things we thought about was, "What if this is Lyme disease again?" And then, the other thing that we had lurking that we knew about was an issue, but couldn't figure out a way to detox. So it was heavy metal toxicity. And so it was basically when my wife was on her deathbed that I'm like, "You know, this is, this is my focus. This is my primary thing to figure out." And that is what shifted my focus from the structural correction chiropractic world to more of what is probably termed the functional medicine-type world.

Erin: Sure. Yeah, because you, like many of us, you have this journey that you're on. And you keep looking for answers. And eventually, you'll come to something that helps. So you found that you had to address chronic Lyme disease and heavy metals to move past that. Could you tell us more about this? What she was going through when you decided to look into this? Was she suffering with headaches and migraines herself?

Dr. Jay: Yeah, so I know this is the Headache & Migraine Summit. And my wife was—when I met her, she could tell you when it was going to rain. That the pressure would change. And she would get a headache. And it would knock her out. Of course, just meeting her, I'm like, "What's going on?" And that continued.

And so there was a lot of, what I would consider, warning signs or other signs and symptoms that she struggled with before the "bottom fell out" leading up to her having our daughter. She wasn't able to fly on an airplane for about four years. It was probably about two to maybe three years before my daughter was born. But she wasn't able to fly just because of the massive anxiety, the pressure that would happen. Just the thought of it.

Dr. Jay: She got a lot of heart palpitations, fatigue. So just even exercising, she'd be down and out for the next couple of days, so adrenal fatigue. She was diagnosed with an autoimmune thyroid during pregnancy when the heart palpitations were going on. But they didn't really have a treatment for that. She had digestive issues, digestive gut issues, heavy metal toxicity. She was exposed to mold. So she had also what's called MCS or multiple chemical sensitivity.

So my wife's file, when she was growing up, was quite thick unfortunately from the hospital. And things just continued. And it was almost to the point, Erin, where she felt like she was always being experimented with and poked and prodded. And she didn't want to be experimented on anymore. So it was just getting by. And then, when my daughter was born, the bottom fell out.

And it was like, "Okay, it's time to get to the root cause." But headaches were a massive thing that she dealt with in her past.

Erin: Mmhmm. So she had all these clues. But sometimes you don't see that until you're looking backwards. I had that, too, actually. So the headaches are one thing, and then anxiety and digestive issues. And it's hard to tie them together to a certain root cause until things get really, really desperate. But if somebody does have persistent headaches or migraines right now, and they've tried a lot of different avenues to get better, why should they consider looking at Lyme disease? Is this actually a common symptom of a Lyme infection?

Dr. Jay: Yeah, well, I would say if you're asking me about top symptoms that clients come to me for, then I would say a vast majority of people have Lyme disease or diagnosed or suspecting Lyme that we work with myself and my doctors, I would say fatigue is top of the list with sleep issues. Those go hand in hand. Third on the list is probably more of like the anxiety, depression, pain. And then headaches, it wouldn't be in the top, I would say, four or five. It'd be definitely in the top 10.

And so Lyme disease…Giving your listeners a little background on Lyme disease because just hearing that word Lyme can be very like "Oh, my gosh, what? You know, I'm scared. But yet, I don't understand it." So it's like this confusion place. So Lyme disease is a bacteria—Borrelia burgdorferi. And now, they've figured out there's a couple more strains of this bacteria that can cause Lyme disease. But essentially, it's a bacteria. And it's a spirochete. So it's a spiral shape. So it loves joints and tissues. It doesn't necessarily love the bloodstream, which can make the testing tougher. So the target organ of Lyme is not the bloodstream, which is why testing is not great.

Erin: [inaudible].

Dr. Jay: Yeah, why it's a toss-up. But Lyme disease, typically, people get diagnosed with Lyme disease as a last resort. Like, they ruled everything out. "You don't have lupus. You don't have RA. You don't have MS. You don't have this, this, this, this. You must have Lyme." So Lyme comes with over 150 different types of symptoms. Headaches, migraines are one of those. So I would say if somebody has headaches, do you have Lyme? I would definitely not ever make that correlation. If you're struggling though with--

Erin: With other things, too.

Dr. Jay: Yeah, other symptoms, other health conditions, yeah I think ruling out Lyme disease is always a good thing, rather than just have it like, "Nothing else showed up. Let's just say you have Lyme." How about look into maybe sooner.

Erin: Especially if you've done the basics like cleaned up your diet, and opened the detox pathways, and cleaned up your environment, and stuff like that, and you're not seeing any progress. You have some of these other symptoms like joint pain and stuff like that, then you would want to see somebody about ruling out Lyme. Is that what you were saying?

Dr. Jay: Yeah, well Lyme is…The CDC about five years ago said that 30,000 people a year are affected by it. Then in 2013, they said that 300,000 people in America are affected by Lyme. And there's experts that say that they're still 10x off. That it's even--

Erin: More.

Dr. Jay: Yeah, it's even more than that. The best way to say it, Erin, is that there's more people affected by Lyme each year than breast cancer.

Erin: That's a lot.

Dr. Jay: Yeah. And breast cancer gets a lot of attention. And Lyme doesn't quite get that attention.

Erin: Yeah. And I think you're right, too. When somebody hears Lyme, they might not even want to look in to it because it sounds scary. But if they do look—because I was trying to learn more about it before this, not knowing very much at all, when you just look out on the interwebs for Lyme disease, it's actually really confusing because you'll hear totally conflicting information. Like a lot of people just think it comes from tick bite. So if they don't live in an area where they have exposure to ticks, they might think, "No way I could ever have Lyme disease."

Dr. Jay: Yeah. Yeah. Well, in Lyme, Lyme is around the globe. It's around the United States. It's always known in the United States as like the Northeast and the Midwest. Lyme's been diagnosed in every single state in the U.S. So we know Lyme doesn't know borders. It does travel via birds and other things. And it is transmitted via tick. But it is other ways: spiders and rodents and mosquitos, sexual transmission, from mom to utero or baby, breastfeeding.
There's a lot of different modes of transmission, which make it to be almost in
epidemic proportions.

Erin: Mmhmm. Wow. So if someone's learning about this, and they maybe get discouraged because there's such a mix of information out there on the interweb—and Lyme seems to be a little more controversial topic than I would have thought it would be—do you have any perspective on how it became controversial and how somebody can dig through the weeds to find out what they need to know to get properly tested and then learn more about it if it turns out they do have it?

Dr. Jay: Yeah. Yeah. The best strategy is definitely education. Fear and maybe emotional actions happen when there's not really knowledge to back up what's going on. So just always learning more about it is a good thing. But Lyme disease, if Lyme is prevalent or present in somebody's body, the key isn't just to kill the bug. The key is to focus on getting the body well, as a whole. And I think that fits in, no matter what your health struggles are, it's still identifying the source or sources to your health issues.

And I think it comes down to two things. I believe it comes down to these two things, Erin, is figure out what is the source or sources of your health issues. And just like headaches and migraines, as to why are you having them? If somebody's on here and they're looking for the next remedy that's going to get rid of the headache when it appears, that's great. That's treating the symptom. And I think that's really important. But you always want to look upstream and say, "What's the source? What's the source or sources?" And treat the symptoms so that life's more manageable. And I always prefer more of a natural way, but work on the symptom as you're moving upstream. And as long as you're moving upstream, then you can get your life back.

For Lyme, oftentimes there can be other things other than just the bacteria. Usually, when there's Lyme, there's other viruses, other bacteria or parasites, fungi or fungus that can be present in the body. And then, along with other things like maybe possible mold exposure, heavy metal toxins, poor dietary choices, lifestyle, emotional stresses, leaky gut, autoimmune issues.

And so Lyme, I believe Lyme gets taken out of context and says, "Lyme's a bug. Kill it with an antibiotic or kill it with that bug bomb." And if that was the only issue, then yeah, then maybe there's a reason for that. But what about all the other things going on with the body? And that's where looking at the body as a whole, holistically, I think is the best route for Lyme.

Erin: To strengthen the whole body, so it goes along with the other infections that we may have or parasites in a sense. Like, if there's things like this in our environment everywhere, but whether we're strong and can resist them—or I call it the weak host, so we have an environment where these things can become overgrown or start affecting us—and that makes all the difference in how we feel.

Dr. Jay: Yeah, it's when the immune system is really suppressed or a lot of stress is going on. Yeah, these things can surface. And the key is just again looking at the body as a whole. But the number one tip I would say, especially for Lyme/ just having headaches/migraines, thinking about, "Okay, well my wife, you know, would get headaches when the pressure changed." And we lived in Wisconsin at the time, which--

Erin: [Inaudible].

Dr. Jay: Yeah, the weather can change a lot from all over the place. So you can have three seasons in a week. So the question to people, "Why would she get those?" And she got headaches and things other times, too. But it was really the pressure change that really killed her or seemed to really make her suffer. And I believe it's all about the drainage.

So the word detox gets used very often for everything. And I like to separate the word drainage versus detox. So detox I think of, okay, you're actually grabbing onto like chemicals or toxins out of the body and removing them. Drainage explained, it's more of just the normal pathways. Like your colon, if you're constipated, that's a drainage pathway blocked up. Your liver, gallbladder, bile flowing is a critical, critical drainage pathway—the kidneys, the lymphatic system. The skin, just even not sweating is a drainage pathway.

So if the body isn't draining properly, symptoms occur. Anytime you kill or anytime you detox, the stuff can't move.

For headaches in the migraine area, that it's the drainage pathway from the brain or the head to the body. So I almost like to separate

the lymphatics. So they've recently found in the last couple of years that there's actually lymphatic connection in the brain to the body. But I like to, for my purposes, thinking about this, I like to separate the head portion from the rest of the body. So it's like okay, the head lymph, or what they call like the glymphatic system versus more of the lower lymph rest of the body. And you can move lymph really well. If you're not opening up that brain lymph channel to the body, that's when the pressure of the body can't adjust. And I believe that was a big issue for my wife was that drain or the...Such a tongue twister...

Erin: Made a difference. Yeah.

David: Yeah, the brain drainage was the big thing for her to get rid of her headaches.

Erin: So did she start doing lymphatic drainage massage? Or how else did she open up those drainage pathways for the head specifically?

Dr. Jay: Yeah. So as I've worked with clients learning more and more tools, for her it was a little rough because we were figuring things out as we went, what worked for her. Today now, though a couple of tips that I would give your listeners of the summit is getting enough sleep. And that, I get when you're not feeling good, that could be one of the tougher things. But when you sleep is actually when the brain drains. So when you're awake, if you think about when you're awake, the glial cells in the brain start to swell up from inflammation. When you sleep, they start to drain. And that helps with the head pressure, so trying to optimize sleep, super important.

There's herbs though and things that can cross the blood-brain barrier. There's essential oils that can do that, as well, to open that up. I'd say one of my favorite essential oils for brain drainage is Boswellia or frankincense is the name.

Erin: Oh, okay.

Dr. Jay: Yeah. Yeah, I always like to call it baby Jesus oil, but frankincense. Yeah. So you can literally put some on your temples, forehead, base of your skull behind where the top of the neck and the base of the skull meet. You just put like a drop and rub it in there. And frankincense helps to open up that brain-to-body channel.

There's a company called Nutramedix. They have an herb called pinella. That one works amazing for brain drainage. But I have to caution you. If you drain the brain, that's going to dump into the body lymph system. You want to make sure to give extra attention to that body lymph. There was an individual that just took pinella by itself. And they ended up with these huge swollen nodules because it cleared the brain. But then, it backed the body up. So I always like to pair pinella with burbur, same company Nutramedix. Burbur and pinella tend to be really great combinations for that drainage that can open that pathway up.

Erin: Those are amazing tips. Yeah, and really, I'm glad we talked about that because that's one of the main complaints I hear people say is that they get these pressure headaches when the thunderstorms come through or the weather changes or something like that. And they can't quite figure out what's going on. So these are really practical things people can do to start feeling better, and it sounds like actually moving your health in the direction, too. It's not just covering up the symptoms, right.

Dr. Jay: Yeah, exactly. Again, if there's anything to think about when you're struggling with health issues, symptoms is always think, "What's the source? What's the source of this?" And that helps to lead you down the right pathway.

Erin: Do you have anything else along those lines of things people can do at home to help with the headache management or with the symptom management that's holistic?

Dr. Jay: Yeah. Yeah. Yeah. There's a good number of tips I would say. One of the things I learned back in my chiropractic schooling days that seems to work for a decent amount of people is acupressure points. So if you look at the thumb webbing of your thumb, and you pinch your thumb and pointer finger together, you'll feel, almost feel like a little marble or ball in there. And that's an acupuncture/acupressure point to relieve headaches. Now, the only contraindication of this is if you're pregnant, you don't want to do this because it will cause uterine contractions, unless you're like over term and you want to get the show moving forward in your labor.

But yeah, so pinching between the webbing. And what you're going to do, you're not going to do that Darth Vader death grip. You're going to apply some pressure. Find out where it's tender, that ball between the fingers. And then, just put some firm pressure and hold it. Typically, when you feel both hands, there'll be one that's more tender than the other. I would start with that one first. You can do though--

Erin: More tender.

Dr. Jay: Yeah, you can do both. The other thing I've seen with headaches, too, going back to when I had a chiropractic office, headaches and relief of the neck area was a really big area. So

any misalignments basically in the neck can essentially cut off the connection from the brain to the body. And essentially, spinal adjustments are just realigning and getting things flowing.

But they've also shown, with chiropractic adjustments like adjusting the...Essentially, if you think about it, shifting the bones slightly back into place, that it actually helps to not only improve the nerve function, which is what the body uses to run the show—the brain communicates to the body through the nerves—but it actually instantly changes the blood flow. And headaches and migraines, they link with a constriction of the blood flow.

So even fixing the alignment in the cervical spine, the neck, can be a big factor. Typically, headaches I would say is the C1, C2, like the top two bones. But when you look at somebody from the side, you should have a C-shape, forward C-shape curve. And if you've lost the curve or reverse curve, that's going to put a ton of pressure up there. And just working on restructuring the neck can be a big help.

Erin: Did you find when you were practicing chiropractic that people would come in with headaches or migraines and have to come in like once a month just to prevent them, and never really were able to hold the adjustment. I ask that because that was my experience. It helped me so much. It really would help ward off having more headaches and things like that. But I found like if I passed that three-and-a-half week, four-week mark that they would all start to come back. So I kept having to go in and go in until I looked into like heavy metals and digestive issues and things like that.

Dr. Jay: Yeah. Yeah. You just said it right there. Somebody, that they're really struggling, they could literally get adjusted every day. And it would help them. But they're going to need to keep doing it because there's other issues going on, other stressors. When you've identified all the source or sources to your health issues, and when you get adjustments, the adjustments hold so much longer because you're not basically doing something to shift it out. There's not that source.

So if somebody's having to go in and get adjusted every week or every day, it's just such a bad case, there's a time and a place for that. But you always want to think about, "What are the other pieces to this puzzle?" And that's really something I found being in the chiropractic profession. I'd see people that gained their hearing back. Headaches gone. I'd say that's an easier thing in the chiropractic world. But people gaining their hearing back. And then, other people are like, "I don't notice anything." And it's like, "Wait a minute." This is definitely a piece I think of the puzzle for a good amount of people. But we have to look at all the pieces. Like you said toxicity.

Lyme disease fits in the pathogen world and relating Lyme disease to the headache. So in the headache world, I feel as if the cardiovascular or the restriction in blood flow plays a big role with headaches and what we believe can cause it. Well, Lyme disease causes what they call a hypercoagulation, where it means that the blood starts coagulating together. And it doesn't flow, as well. Well, think about that. Pathogens cause hypercoagulation meaning the blood flow doesn't go as well. Headaches have a lack of blood flow. So I believe that there can be a connection even because of the hypercoagulation of pathogens like Lyme and other bugs causing that, too.

Erin: So there could be other bacterial infections or like the parasites, too, that are putting off toxins?

Dr. Jay: Yeah. Yeah. Yeah, viruses, parasites, bacteria, these different stressors can cause coagulation of the blood. Even EMFs—electromagnetic field—or what's technically called EMRs now, electromagnetic radiation from like Wi-Fi and Bluetooth, they can also change. Cell phones right to your head can change the coagulation of blood. So there's many things that can do it.
But pathogens are definitely one of those categories.

Erin: Okay. So definitely something we need to take a look at. If somebody's feeling overwhelmed with all of these different root causes, they just feel like there's too much to look at, they don't even want to start, what do you tell them?

Dr. Jay: Yeah, well, that is the million-dollar question now because we're in an information age. Well, I should say an over-information age. You start going down a rabbit hole. And you're like, "Oh, my gosh! Now, I learned all this stuff. I've learned these 40 supplements that are good for headaches." It's like where do you begin? This is where it's I always love people learning, especially for their own condition and what's going on.

But there's also the boundary of like you get lost in your emotion and can start thinking, "It's definitely got to be this." And then, maybe get a little tunnel vision and not see other things, so having like a family member or a friend or a health coach, I think having like a practitioner or health coach or somebody to help in this journey, depending on how bad your health is, is always a good thing to do.

But you want to just focus on, "Okay, what's the source or sources to my health issues?" And let's say it's Lyme disease. Let's say it's heavy metal toxicity. Let's say it's mold. Whatever those things are. Then, the question begins. "Okay, so if those are the source or sources to my health issue, then where do I need to start? What do I need to start doing today that's going to get me closer to fixing that?"

And so focusing on the big picture of the source or sources. And then also, too, it's like okay, well, if Lyme disease or mercury toxicity in the brain, because mercury loves the brain. Aluminum loves the brain, which is again could be headache triggers—but if heavy metals are the thing that you have to detox, great. But what can you do today to help manage that migraine or that headache so that you don't have to go home from work at lunchtime because you can't function?

So I always like to go symptom plus source. Yep. Yep. And just think of it from that way because otherwise when you start digging in and researching and reading, you're like…It's almost like the paralysis by analysis. But it's almost like the paralysis by over information. Like, "I just don't know what to do."

Erin: Absolutely. But yeah, so you have to start somewhere. But keep looking, too, because you want to know like the root cause of your Lyme. I'm an engineer by background so we always do root cause. One of the steps that we do in root-cause analysis is asking "why" five times. They call it the five whys. So you might be affected by Candida. But Candida's never like a standalone issue.

So you have to ask, "Well, you know, why am I having this? Where is it coming from?" And keep digging it deeper and maybe charting it out or something like that just to prevent overwhelm but don't give up at the first thing you find. Or just don't go spend all of your energy chasing the first thing that you find because if you don't look at the other factors, it's hard to heal just from that one thing. Like Candida, for example, people will put this big effort towards overcoming that. And if you don't look at maybe infections behind that or parasites or heavy metals behind that, they'll never get better from the Candida itself because it's just more of a symptom of a deeper problem.

Dr. Jay: Absolutely. Yeah, and I would agree with you on the candida. The heavy metals, huge link with that. And also, bacteria, fungus, parasites, they all work in synergy. Usually when there's Lyme disease, there's other bugs.

When there's candida, there's other things to it. And yeah, you can minimize the symptom, but always getting to the source, like you said, is important. So keep asking that "why?" I love that. And the engineer brain, so we can start talking about the neck curve and the 42.23 per ounce. I'm just teasing.

Erin: Absolutely. Well, something nerdy I did want to get into because I know you work with people on genomics more and more now. And that's like one of these sublevel root causes because if you can pinpoint an issue that's off there, it can make a huge difference in recovering. So can you just like to kick that off tell us a little bit the difference between genetics and genomics? And why this is an exciting place to start investigating?

Dr. Jay: Yeah, yeah, I love this area because I personally believe that this is the future. And things are advancing so fast that I don't even think I'm grasping it, let alone where things are going to be in 12 to 18 months. The amount of technology advancement is insane. By the end of this year, there should be available a full genome analysis for maybe 100 bucks. And right now, like the 23andMe is very popular. As of right now, when we're doing this recording, they're on version 4, chip 4 basically. And they're looking at about 635,000 different pieces of DNA information. Well, that right there is like 635,000. Like, that's [inaudible].

Erin: Talk about information overload.

Dr. Jay: Yeah, well a full genome is going to be in the millions, like maybe 50 million or something crazy. So it's going to be exponential. But things are changing so fast. And I believe the future, especially of like natural healthcare, functional medicine, is looking at the genetics or genomics from more of a lifestyle basis. I like to steer away from what I would consider more disease genetics or genomics, and focus more on lifestyle.

Like disease genetics or genomics, for instance, would be like, "Oh, you have a six-time increased risk of uterine cancer because you have this gene SNP. Or you're three times more likely to even have a headache." And I, from a clinical side, I'm like I'm almost freaked out by knowing that. And I don't--

Erin: Yeah, a lot of people are as patients, too. They don't want to think about that.

Dr. Jay: Yeah. So from a practitioner standpoint, I love looking at it from more of a lifestyle, and saying, "Okay, Erin, based on your genetics, what amount of carbohydrates would actually be beneficial for you?" Because there's diets all over the place. Every year, there's New York Times' bestsellers from raw vegan to ketogenic to everything in between. And looking at your own personalized genetics like what

carbs, protein intake, fats? Are you somebody that really is genetically privileged to have a lot of fats? And what type of fats? There's different kinds of fats. So even being able to personalize…So I'll come back to your original question here, too.

So if I take a big picture, look, I say—okay, when I'm working with a client, I'm looking at, "Okay, what's the source or sources to your health issue?" And then, also want to look at the genetics or the genomics, which is genetics essentially is more of looking like single gene and that's just the single gene.

Genomics is technically a more correct word to use. It's not quite as familiar. So I'll often interchange them. I know that's not proper. But genomics is more of looking at the gene and how it interacts and affects the body as a whole. So it's a little bit more of a holistic approach I guess using the genomic word. But I oftentimes use genetics just so people aren't like, "What's genomic?"

But so when I'm working with a client or looking, "Okay, you've been struggling with health issues for 12 years. You know, like you can't even get out of bed. And you know everything is stressed out because your health is stressed out—relationship, job, all of that stuff." I love to look at, right now, in this circumstance, this environment, what's going on because environment trumps everything. But I also love to look at, "Okay, let's look at your blueprint. Your individual blueprint of what God gave you. Or what you were born with from mom and dad, and say, "Okay, well based on your genetics or your genomics, what are the foods? What's your sugar addiction? What's your insulin blood sugar level tendencies?"

And it's almost like merging them. So looking at environment and then looking at genomics or genetics. And I really believe that genetics can give us a look in to the future and say, "Okay, in five or 10 years, [inaudible] now following dietary guidelines like this for you is really going to be great." But that environmental factor, like if somebody's really adrenal fatigued, and let's say that super-low carb and ketogenic is great for them, well, it might not be right at that moment because their body doesn't have the resiliency to transition or keto-adapt. So there's got to be a little bit of a mending from environmental or current versus genetic. I believe they both have a place. But it's like a practitioner blending.

Erin: Blending. Yeah, so you have to look at what somebody's going through. What they might need to heal the situation they're in right now in addition to what they're genetically set up to need. And if you look at the genetics or a specific pattern, how can this be helpful with somebody who has headaches and migraines? Or do you say it's just helping them cut through a trial and error on their way to finding what's working for them?

Dr. Jay: Yeah. Well, genetics really gives you a blueprint for you. So nobody is the same. That's why I believe there can be 10 New York Times' bestselling diets. And they can all be different because they can work for different people. So it's a way that you can quickly understand the body.

And what I've found when I'm doing genetic analysis or genomic analysis and my docs are doing it with clients, it's like we have a tendency to eat that way. Or we have a tendency to do what our genes are even saying.

But there's not always the best understanding of why you're doing it. And the genetics/genomics, looking at your genes, helps to solidify like, "Yeah, there's a reason every time I have coffee, I feel like agitated or anxiety," because there's a gene that you can be prone to anxiety or agitation from that. So understanding our genetics helps us walk more in our own individual blueprint, which from a dietary standpoint can help say maybe you're not the best…

Like for myself, I don't do great with what they call PUFA fats. It's polyunsaturated fatty acids. And there's bad PUFAs everybody should stay away from like soy bean oil, canola oil, corn oil, the rancid oils. But there's good PUFAs like nuts and seeds. And my body just, from a genetic standpoint, less than 6% PUFA. Well, I used to eat a lot of nuts and seeds, a lot of gut disturbances. And cutting that out, it's like, "Oh, I feel better." So it helps to really guide you for your individual body.

Erin: Mmhmm. So it sounds like things that people might notice or know intuitively, but they don't always listen to because they don't understand that it's actually wired in them to be that way. So once you know that's right for you, then you can just move forward in your life and feel better and confident that you're doing the right thing. That you're not missing out when everybody else is publishing articles about, "Oh, you should eat more walnuts and almonds to be healthy." You can say, "Okay, that's not my path."

Dr. Jay: Yes. Yeah. Yeah. And the genetic/genomic world, like I said it's the Wild, Wild West right now. And just trying to keep up with the information coming out is a full-time job by itself. So it's always good just to find somebody that can sift through it because it's like a foreign language. And you're like the prone to anxiety, agitation,

it's called the ADRA2A gene. That one's not bad. And then, there's some sleep ones like timeless and some other names, BDNF, that are maybe more... But some other ones that are like CY, 1P, 2A. You're like, "What, what the heck is this stuff, so?"

But the genetic world, we can look at somebody's exercise. So is somebody better with more of like endurance, slow and long exercise? Are they better with more like high-intensity sprinting? Are they better more—like, if weight's an issue, for instance—are they better more with a mix of exercise or yoga? And we can look at genes and try to understand the body better that way. We can look at detox pathways: phase 1, phase 2. And phase 1 involves like estrogen metabolism. And hormonal disruptions, Erin, I would say is a big factor, too, for headaches and migraines.

Erin: Absolutely.

Dr. Jay: And usually, there's always a source of why there's hormone issues, whether it's a pathogen issue, heavy metal toxicity, what not. There's always usually sources of why it's going on. But you can also look at the genetics for your detox pathways and hormones. You can also look at nutrition. Like, I was mentioning earlier, you can look at sleep. And are you more of a late-night owl? Are you more of an early-to-bed, early-to-rise type of person? How well do you sleep? Do you get sleep disturbed very easy? And the more you understand about your body, the more you can set your life up to try to—I don't want to say it's a game, but win the game—optimize. Maybe it's better to say optimize you.

And then, we could also even look at supplementation. So vitamin D gets talked about a lot with everything. And the vitamin D pathways got maybe nine genes in the whole pathway. How you absorb sunlight and convert it to vitamin D. My wife, horrible at converting sunshine to vitamin D. I'm amazing. I'm like, I wouldn't have known that without looking at genes. So even though, we live in--

Erin: Is there something you can do other than taking more supplemental vitamin D to like support the mechanism of absorption or production? Or is the answer just to take vitamin D?

Dr. Jay: Yeah. Well, so, primarily, we get vitamin D, either through sunshine that converts to vitamin D, or we get it through our diet, which you get some in food. But it's primarily more supplementation. If somebody's a really bad sunshine converter to vitamin D, that pretty much guarantees you're going to need some form of supplementation to--

Erin: Ongoing.

Dr. Jay: Yeah, to have that level. But you can literally look at the pathway and say, "Whether, it's from sunshine or from diet—how do activate that in the liver, the first step? How do you transform 25(OH), which is usually that blood test they run into the active form called 1,25 (OH)? How do you break down?" There are some people that don't break it down well. And they can actually get toxic of vitamin D very easy because they don't break down the active form.

We can look at how you respond to vitamin D. Can look at, there's a cool gene called the klotho. And it's a longevity gene. It's involved in vitamin D, as well, too. So there's a lot of pieces. But inevitably, you always want to just focus on what's important for me to know. And then, what do I need to do today? Have a big picture in mind. But what can I do today to start moving me toward that direction? Because it can be overwhelming very easily.

Erin: Yeah. Sure. Definitely. I think that's a great example though of why looking at these genes can be really valuable though versus just taking things because you read about it or you tested low or something like that without ever investigating like why you're low.

I think B vitamins are another example that come into play for people with migraines a lot. They get recommended to take various B vitamins. But you would need to look at or you could look at your genetics to see which form is the best or where that deficiency is coming from. Can you talk a little bit about what could go wrong there?

Dr. Jay: Yeah. Yeah. Yeah. So the big one in that category is B12. And that one will get recommended, especially in the headache category, quite often. And there's different genes. There's B12 absorption genes. Just like how do you absorb them. They call them the FUT2 genes. They have some relation to gut bacteria, too, because it's like gut absorption or B12 absorption through the gut. There's the recycling pathway of B12. MTR and MTRR is the pathway for recycling B12. So if you're a bad absorber, if you're a bad recycler, you can pretty much guarantee you're going to need more than somebody that's not. Just based on the genetics.

But from the B12, there's different forms of B12. There's methylcobalamin. So if you just remember, it's always something and cobalamin, so methylcobalamin, hydroxycobalamin, cyanocobalamin. And most people will throw cyanocobalamin under the bus. And I think, I mean your body has to convert cyanocobalamin into more of an active form. So I can see that. Some

people say, “Oh, it’s producing cyanide in your body.” I would not say that.

But you can literally look at your genetics and see are you best with hydroxycobalamin, methylcobalamin, cyanocobalamin? Maybe, a combination of two. Maybe a combination of three of them.

And just again, it’s about trying to understand your body better. The less you rock the boat, the less you disrupt the ship that you’re on, the less symptoms you’re going to get. The better you’re going to feel. So it’s very easy that even just a supplement you’re taking could be something that’s disrupting your equilibrium. And then all of a sudden, if headaches are a tendency for you, any time the body gets stressed, then that’s where it’s going to surface. And it might not be always the first thing we assume it is. And it could be even the form of vitamin, like you said.

Erin: Mmhmm. Like just looking into that or changing it out could have a big impact. Do you--

Dr. Jay: Yeah. And if you...Not to cut you off, but I will for a second. If you think about three main things, right—let’s simplify the complex here. If you can stop the supplements that you don’t need or get off the stuff that’s maybe got really bad ingredients in it that your body’s reacting to, if you can figure out what you do need, and then you can stay away from the foods that are upsetting you, whether it’s caffeine or maybe you react to oats, or gluten, or dairy, or egg whites, if you can figure out what the foods are you react to, stay away from those.

If you can remove the supplements that are causing issues that your body’s actually reacting to and if you can take the stuff you need, those three things can literally transform people’s lives.

Erin: Mmhmm, nice and simple. Do you believe that really anybody can heal their body and get rid of headaches? So after listening to all of these different sources, they should have some good ideas. But is it possible for pretty much anybody that puts their mind to it to get over their headaches?

Dr. Jay: I believe—I’m a Christian—and one of the things I always think of saying-wise is, “God doesn’t make junk.” Meaning that if we can identify what’s in...And he doesn’t make junk. And God also needs no help. But he needs no interference. So what’s interfering with the body’s ability to heal? And no matter where you’re at in spiritual, it’s the idea that the body can self- heal. The key is to remove the source. If you remove the source, the body can absolutely heal.

Now, if somebody’s been knocked down and out for maybe 20, 30, 40 years, they’ve had health issues, their resiliency, their ability to bounce back is not going to be as quick or fast typically as somebody where it’s just happening. So the faster you can figure out these pieces to the puzzle and address them, usually the better the body will be resiliency.

But even if you’ve been knocked down and out for many years, the body can absolutely heal, as long as you identify what’s interfering with the body’s ability to work in the first place. And you might be because of maybe your journey, and the things that you’ve had, and the traumas, and the length of time, you might be a little bit more susceptible to getting symptoms more than somebody else. And that’s fine. That is what it is. But as long as you focus on removing the source, I absolutely believe there’s hope.

My wife with the headaches, she can never tell you when it’s going to rain. And, of course, people would say, “Well, you live in San Diego.” Well, it’s been really, really rainy over this whole winter or season in spring. And she has no headache. There’s no headache. And it was all about getting to the source. And then, all of sudden, when that was removed, that symptom of what she was experiencing—migraine headache and having to lay down—was gone.

Erin: Mmm hmm. Yeah, so it’s not an overnight thing for everybody. It’s not always a quick solution of tweak this in your diet or take this supplement. But eventually looking at different root causes and starting to put that puzzle together, there is hope.

Dr. Jay: Absolutely. Yeah, we all want the quick fix. We all want the magic pill. In reality, it’s usually a combination of figuring out what are those missing pieces and doing them in synergy that gets people over the hump.

Erin: Mmhmm. Cool. Well, we talked about a lot of different things today. So to recap and guide our listeners in the right direction, I know the Chronic Lyme Summit is an amazing resource. We really talked about like why somebody might want to consider it and when they might want to consider it.

But if they wanted to know more about what to do about it or how to get tested and all that, you have this wealth of podcasts and articles on your website, DrJayDavidson.com, and this Chronic Lyme Summit. Is there anything else you’d direct them to for that?

Dr. Jay: Yeah, the best resource is probably just my website, DrJayDavidson.com. It’s D-R for doctor. And then Jay Davidson like Harley. Just unfortunately no

relationship to the motorcycle company. But that's got links to our Lyme Summit, number one. Number two, it's got links to the Detox Project, talking about detoxification. But we've got some free resources on there, as well, too. The best place to start, because again this can seem overwhelming, the best way to eat an elephant—not that we're going to eat one—but the idea, it's big for fixing our health, is just one bite at a time. So just starting to understand more of what the body's going through. Tools.

I really love...I wrote a book a couple of years ago. It's called 5 Steps to Restoring Health Protocol. I think that's a great resource. It was a little selfish when I wrote it because I just wanted to brain dump everything and all this research I'd compiled. Instead of having stacks, it was like turn into a book. But it's really just about trying to simplify the complex idea of all the things going on and how do you work through it. And if you're not a reader, I recorded the audio book, as well, on Audible. So you can always listen to that. I think those are great resources.

Erin: Those are really great. And I encourage people to check out your podcast, too, because I think you do a great job of explaining things like coffee enemas that nobody wants to talk about or Lyme disease from start to A to Z really in detail. So if they got their curiosity peaked here and they want to learn more, I think that's a great resource for people. So thank you so much for being here and sharing with us.

For all of our listeners out there, I hope you get the chance to tune in and learn from more great speakers during the summit. Again, my name is Erin Knight. And I will see you next time!

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